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ABSTRACT

This report, conducted by the Illinois Community College Board, highlights and summarizes accountability activities and initiatives described by Illinois' 48 community colleges in their 2002 Accountability/Program Review Reports. The report provides evidence that Illinois' comprehensive community colleges play a vital role in the state's educational and workforce preparation. Highlights include: (1) nearly every college described initiatives and partnerships with universities/colleges relating to teacher preparation; (2) the need to be increasingly accountable for student achievement and preparation has led educators to assess their efforts from a student learning (outcomes) perspective rather than the traditional teaching (learning) perspective; (3) during fiscal year 2002, colleges reviewed a total of 84 academic disciplines, 26 adult and developmental education and English-as-a-Second-Language programs, and 681 career and technical education programs; (4) as a result of reviews, 536 programs were continued with minor improvements, 38 were significantly modified, 59 were identified for elimination, and 48 were scheduled for further review; and (5) the most commonly identified strengths for career and technical education programs were knowledgeable and experienced faculty, active advisory committees, quality internship and work-based learning opportunities, and positive relationships with employers and the community; weaknesses were low enrollments, low completions, and need for updated curricula or equipment. Appendix contains three summary tables. (CB)

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Illinois Community College Board
Fiscal Year 2002

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In The Community College System
October 2002

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Illinois Community College Board

ACCOUNTABILITY AND PRODUCTIVITY IN THE ILLINOIS COMMUNITY COLLEGE SYSTEM FISCAL YEAR 2002

Introduction

This report highlights and summarizes accountability activities and initiatives described by Illinois' 48 community colleges in their Accountability/Program Review Reports for Fiscal Year 2002. The reports submitted by the colleges provide evidence of the ongoing review processes that are in place to ensure that high levels of quality and productivity are achieved for programs and services that best support each college's mission. Through program review, the colleges examine targeted program areas and services to assess their ability to meet their intended purpose in a cost-effective, high-quality manner. Each year colleges also address selected focus areas of particular relevance to state-level issues and concerns.

The two primary sections of this report include **Accountability Special Focus Areas and Analyses of the Results of Fiscal Year 2002 College Program Reviews.** Topics considered in the *Accountability Special Focus* section this year include Teacher Preparation and Professional Development, Program Assessment, and Performance-Based Incentives - District-Based Goal. Programs in five academic disciplines; 26 career and technical education program areas; and Adult Education and Family Literacy, English as a Second Language, and Developmental Education are examined in the *Results of Fiscal Year 2002 College Program Reviews.*

The report of *Accountability and Productivity in Illinois Community Colleges Fiscal Year 2002* provides evidence that Illinois' comprehensive community colleges play a vital role in the state's educational and workforce preparation. They provide access and opportunity to nearly one million diverse students annually, including those seeking assistance deciding on a new career or upgrading skills for their current occupation, persons interested in transferring to another college or university, and students who need to sharpen their basic skills. In addition, they are a valuable resource to businesses and industries and a partner in economic development in the districts they serve. The report also illustrates that the colleges are committed to continuous improvement of their programs and services and that they have in place strategic planning processes to address future needs. The content of the reports affirms that Illinois community colleges continue to play an essential role in preparing the well-educated, high-skilled citizenry the state must have to support a strong economy and a desirable living environment.

Accountability Special Focus Issues for Fiscal Year 2002

Each year, in addition to the regular cycle of Program Review/Accountability analyses focusing on instructional programs, colleges are asked to address selected issues that have been identified as priorities through state-level analyses or the review of previous reports. During fiscal year 2002, three such special focus areas were identified as **Teacher Preparation and Professional Development**, **Program Assessment**, and **Performance-Based Incentives-District-Based Goal**. A summary of the college's reporting on these issues follows.

Teacher Preparation and Professional Development

All around the nation, states are facing the challenging issues of improving the quality and supply of educators needed for their schools. Illinois is no exception. The call for increased accountability for public education in the United States has focused attention on the importance of good teaching to student achievement. At the same time that reform initiatives are being implemented to strengthen the preparation and professional development of teachers, schools are faced with replacing huge numbers of teachers who are either retiring or leaving the teaching force for other reasons. Nearly 50 percent of Illinois' teachers are eligible to retire within the next five years, yet only about 12,000 teachers are prepared annually in Illinois. About one-third of all new teachers leave the profession within five years. In addition, a significant number of teachers are not adequately prepared in the subject(s) they are teaching. Up to 25 percent of high school English teachers do not have a major or minor in English. Up to 33 percent of high school mathematics teachers do not have a major or minor in mathematics. Further, under-qualified teachers tend to be assigned to students that are at highest risk. Seventy percent of under-qualified teachers are employed in schools with the highest concentrations of high poverty and at-risk students. (*Improving Illinois' Educator Workforce*, A Report to the Illinois General Assembly prepared by the Joint Education Committee in response to HR 250, November 2001).

It is clear that the magnitude of these problems will require the efforts of all education providers in partnership. Community colleges have historically played a role in providing some or all of the first two years of college preparation for intending teachers. Studies have shown that approximately 44 percent of the graduates of public university teacher education programs in Illinois annually earned the equivalent of a year or more of their coursework from a community college. There is a general consensus that providing general education and technology training for intending teachers is an appropriate role for community colleges. There is less agreement regarding the appropriate role for community colleges beyond instilling technology skills and general education, such as providing early clinical experiences and/or professional education courses. There is also general agreement that community colleges can and should play a role in providing professional development opportunities for existing teachers.

Discussion among all education sectors, business and industry, legislators, and others regarding the community college role in teacher preparation is occurring at both the state and national levels. In Illinois, the Governor convened an Education Summit in November 2001 and January 2002 to discuss issues of teacher quality and supply and develop recommendations for a fiscal and legislative agenda to address identified needs. On March 6 and 7, 2002, a meeting of representatives from Illinois community colleges and college and university teacher preparation programs was convened to discuss the future role of community colleges in teacher preparation. On September 17, 2002, a meeting was held with community college and university administrators to begin discussions regarding the creation of an Associate in Arts in Teaching degree. In addition, the Illinois Community College Board is a partner in a federally-funded project led by the Education Commission of the States to explore the community college role in teacher preparation in selected states, examine related policies and identified barriers, and ultimately develop policy recommendations that will be discussed in national forums.

As all of these forces converge to clarify the role of community colleges in teacher preparation, including professional development, ICCB staff need to have a complete picture of the scope of related college activities and partnerships to help inform the policy-level discussions that are occurring. Colleges were asked to provide information regarding local teacher preparation initiatives and partnerships, as well as college involvement in the provision of professional development opportunities, particularly those that support teacher re-certification requirements. The following is a summary of their responses.

Teacher Preparation Initiatives and Partnerships

Nearly every college described initiatives and partnerships with universities and/or other community colleges relating to teacher preparation, such as specific articulation agreements with K-12 and university partners, aligning courses and curricula with state and national standards, developing agreements for baccalaureate-completion programs and/or alternative certification opportunities on community college campuses, and working in partnership with K-12 school districts and universities to recruit and prepare teachers for hard-to-serve areas. In addition, many are focusing on the development of paraprofessional training programs for teacher assistants/aides in order to meet the requirements recently established in the No Child Left Behind federal legislation. Several examples of teacher preparation activities are as follows: Richland Community College and Lincoln Land Community College, along with their area school districts, are partners in a baccalaureate-completion program with National-Louis University and the Illinois Teacher Education Partnership (ITEP) grant project. The purpose of the partnership is to create a restructured teacher education program offered on-site at schools within the region to attract, prepare and retain a new generation of teachers for high-need K-12 schools. Kankakee Community College will be piloting a "Making the Grade" initiative which involves joining district schools in recruiting, mentoring, training, and retaining new teachers. Through this initiative, a cohort of 40 academically talented and interested junior and senior high school students in the district would annually be afforded the opportunity to job shadow mentors, gain trial teaching experience, receive academic advising and placement assessment, as well as garner credit-in-escrow at the community college while still in high school. Olive-Harvey College is partnering with Chicago Public Schools, three universities, Wilbur Wright College and Malcolm X College in "Teachers for Chicago: An Accelerated Training Partnership." This project is directed at finding and training prospective teachers skilled in science, mathematics and information technology who will serve in urban areas of greatest need. Prairie State College,

along with Morton, Truman, Kishwaukee, Moraine Valley, South Suburban and William Rainey Harper Colleges, have proposed a project entitled "*A Consortium for Enhancing Teacher Education in the Community College*." This project involves developing a model for ensuring that community college teacher education students are prepared to pass the Enhanced Basic Skills Test prior to transfer to a university teacher preparation program. This model will include reviewing the general education core curriculum at the community colleges and aligning it with the eighteen standards of the test.

While numerous initiatives and partnerships are underway to address issues of teacher quality and supply, colleges cited several existing barriers that still need to be addressed. For example, teacher education programs at senior institutions have different prerequisites; i.e., different teacher education courses taken prior to formal admission to a teacher preparation program. Many of the courses offered at community colleges, which follow the recommendations developed by the education panels of the Illinois Articulation Initiative, are not accepted into the major upon transfer. Senior institutions also have a different number of clinical field experiences as co-requirements for these pre-professional courses, again making transfer of credit unlikely. In addition, teacher education programs often put limits on the number of transfer students allowed in their programs, leaving many community college students interested in teacher preparation searching for placement. The development of an Associate in Arts in Teaching degree promises to be a positive step in addressing some of these issues.

Professional Development Opportunities

The breadth and depth of professional development offerings at community colleges is notable. Credit and noncredit courses, workshops, seminars, conferences and other activities providing Continuing Education Units (CEUs) or Continuing Professional Development Units (CPDUs) for teacher re-certification are common and widely available. Professional development activities for community college and university faculty also exist. Many of the activities described by the colleges are tailored to meet the needs expressed by school district personnel and are offered both on- and off-campus and through online delivery methods. Some examples follow.

Morton College and South Suburban College offer tuition-free courses for district teachers needing credit for re-certification. Teachers can choose to upgrade their technology skills, brush up on new innovations in their major discipline, or branch out to a related area for an additional endorsement. William Rainey Harper College offers a variety of courses specifically designed for current K-12 classroom teachers. They also provide on-site professional development for District 54 substitute teachers and teacher aides. Parkland College, through its International Education Office, helps educators develop multi-cultural content, while offering numerous ways to broaden their own horizons and deepen cultural understanding so that they are better prepared to help their students succeed in an increasingly diverse society.

These and other activities, particularly in the area of technology, are drawing high numbers of teachers. In fiscal year 2002, Oakton Community College awarded 335 K-12 educators a total of 2,530 CPDUs. Lake Land College offered 131 professional development workshops with a total of 540 participants, and Waubonsee Community College's noncredit offerings served 646 teachers through 78 courses. Lewis and Clark Community College served 1,038 teachers who were enrolled in 79 separate sections of noncredit classes; another 52 public school employees enrolled in credit-

generating, district-sponsored teacher assistant training classes to improve their skills as classroom aides.

Program Assessment

The need to be increasingly accountable for student achievement and preparation has led educators to assess their efforts from a student learning (outcomes) perspective rather than the traditional teaching (inputs) perspective. Assessment has become an essential tool to ensure student learning and the continuous improvement of instruction. Pledge Five in the Illinois community college system's strategic plan, *Promise for Illinois*, states that Illinois community colleges will "emphasize high quality in all programs, services, and operations." Similarly, Goal 5 of the Illinois Board of Higher Education's (IBHE) *Illinois Commitment* states, "Illinois colleges and universities will hold students to even higher expectations for learning and will be accountable for the quality of academic programs and the assessment of learning." The same goal specifically stipulates that by 2004, all academic programs will systematically assess student learning and use assessment results to improve programs. In a subsequent concept paper addressing this specific requirement in Goal 5, IBHE defines the assessment of student learning in all programs as: the systematic determination of what students know and are able to do as a result of completing a unique program of study by using multiple qualitative and quantitative measures, including end of program assessment, and the use of these results for improving the quality of the curriculum, teaching, and student learning.

In order to determine the current status of and future plans for program assessment, colleges were asked to provide information on programs that already have program assessments in place and plans to develop program assessments for those programs that do not currently assess students' learning as a result of completing the program. The following paragraphs summarize the college responses.

All of the colleges have developed institutional assessment plans partly in response to the emphasis placed on assessment by the North Central Association, but they are in various stages of implementing the plans. A common thread among the college reports is the organizational approach to the assessment of student learning. Nearly all of the colleges have identified a central point of responsibility for assessment within their administrative structures. Likewise, nearly all colleges utilize one or more faculty/staff committees to move assessment plans forward, and those committees often interface with institutional strategic planning and/or budget processes. The majority of colleges acknowledged that to date, assessment efforts have focused on course outcomes more often than on program outcomes. No college reported having comprehensive assessments in place for all programs. A few, however, are nearing that goal.

Colleges are most likely to have comprehensive program assessments in place for career and technical programs. Several colleges are developing and/or implementing assessments for general education programs. Only a few colleges reported having comprehensive assessments in place for transfer programs, and many acknowledged that developing program-level assessment for transfer programs is challenging. Following is more detailed information regarding the status of assessment for each type of program.

Career and Technical Education Programs

Many career and technical education programs prepare students for regulated and/or licensed occupations or for occupations where voluntary industry-defined certifications are available to students. Where they exist, these external mandatory or voluntary licenses and certifications provide a meaningful form of program-level assessment. The programs most commonly identified as having comprehensive assessments were those that prepared students for some type of external examination. Examples include nursing, allied health, truck driving, and real estate, which require licensure; and, information technology, protective services, automotive repair, hospitality, and banking, which offer industry/professional certifications. Many career and technical education programs also offer or require capstone experiences such as internships, clinicals, or practica that allow students to demonstrate their mastery of and ability to apply program content. Specific examples of colleges' actions regarding program level assessment of career and technical education programs follow:

- Waubonsee Community College has established end-of-program assessments for all career and technical education programs using ACT WorkKeys, licensure/certification examinations, or portfolios.
- Sauk Valley Community College mandated internships to serve as capstone experiences in all Associate in Applied Science degree programs and in the human services and criminal justice transfer areas.
- Illinois Valley Community College encourages students to be involved in education, career, and community outreach projects that provide direct and indirect evidence of achievement of identified program learning outcomes. For example, a Students in Free Enterprise team recently won a regional competition in the two-year division. The competition requires students to take what they have learned in accounting and finance classes and apply it to real life situations. An interdisciplinary project, Making Industry Meaningful in College requires students enrolled in Manufacturing, CAD, Plastics, Electronics, Marketing, and Business and Accounting to collaboratively create an entrepreneurial environment where they plan, design, manufacture, market and sell products.

General Education Programs

Most colleges indicated that learning outcomes have been identified for general education for transfer and/or career and technical education programs. The institutions are in varying stages of developing and implementing assessment to determine student achievement of the identified outcomes. The most common assessment methods being utilized include common exit examinations for core or key general education courses, portfolios, and capstone courses. Specific examples of efforts to assess student learning in general education follow:

- The City Colleges of Chicago have developed uniform exit competencies in biology, mathematics, and English, and have developed uniform exit examinations to measure student achievement of the identified competencies.
- Prairie State College utilizes various assessments to determine learning in five identified general education categories. In humanities, faculty developed a rubric that is used to assess whether students who have taken the three humanities courses required for the general education core can demonstrate that they have internalized a sufficient breadth of vision about human nature. Essays are used to assess the learning outcomes. In science, faculty have developed a departmental test to assess whether students completing their general education science requirement have an appropriate understanding of the scientific method

and the kind of thinking required of a scientist. The College has also included methods to analyze the findings of the general education assessments and use the information for program improvement, which will be highlighted in a subsequent section of this report.

- Students at Malcolm X College submit a portfolio with self-selected samples of work that demonstrate their mastery of learning related to five identified general education objectives. Faculty are currently developing an instrument to systematically assess the portfolios. However, the College reports that even before that assessment is available, the process of developing the portfolio is an effective self-assessment tool for students.
- During the past year, Morton College offered for the first time a team-taught capstone course that used a theme of contemporary issues and ideas to integrate all general education objectives. Enrollment for the first course offered was low, but the College reported that it was a valuable experience for the students who completed the course.
- Lewis & Clark Community College has selected critical general education outcomes and beginning Fall 2002 will assess related student learning through a post-program test that combines course examinations and an essay examination that tests for cognitive skills.
- Lake Land College measures student achievement of identified general education competencies through a combination of an academic profile assessment by ETS, student artifacts, and surveys.
- During the past year, South Suburban College piloted a general education assessment in mathematics and critical thinking with a cross-sectional sample of 200 students.
- At Kishwaukee College, all Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Engineering degree graduates must submit a degree portfolio, which is used to determine if students master the College's general education goals for writing, thinking, and using general education information.

Transfer Programs

Few colleges claimed to have program-level assessment in place for transfer programs. Many reported that once assessment of the general education program is fully implemented, they will expand the approach across additional transfer courses to achieve program-level assessment for transfer degree programs. Indeed, for those colleges that are assessing transfer programs, the methods most commonly used mirror those used for general education assessment, namely common exit examinations, portfolios, and capstone courses. Examples of approaches to assessment of transfer programs follow:

- Lewis & Clark Community College uses pre- and post-tests and common exit examinations for selected key transfer courses.
- Lake Land College has established competencies for transfer programs. Faculty are expected to select discipline-appropriate assessment methods to document student achievement of the identified competencies. Most transfer programs have assessments in place.
- Danville Area Community College reported that all 12 transfer discipline areas have completed assessment plans.

Use of Assessment Results for Improvement of Teaching and Learning

Community colleges use a combination of multiple qualitative and quantitative measures to assess programs and student learning, including completion rates, persistence, GPA, test scores, portfolios, capstone courses, internships/clinicals/practica, graduate and employer surveys, and UI wage data.

While the data in and of themselves are valuable tools to document student learning outcomes, their aggregate value is in their use for program improvement in order to support high student achievement. Specific examples of how colleges are using the results of program-level assessment for the improvement of curricula and student learning follow:

- At Lewis & Clark Community College, all assessment processes include an action loop to ensure that appropriate action is taken to drive improvements in programs, processes, people, or performance.
- Richard J. Daley College utilizes a feedback loop that involves faculty grading teams for each of the five general education outcomes. Samples of student work across the curriculum are collected at the end of each semester. Teams grade the sample work in accordance with the purposes of the assignments and with agreed upon criteria. Results of the grading are sent to the Institutional Effectiveness Committee and the Assistant Dean of Research and Planning, and then to the faculty as a whole.
- Harry S Truman College uses course portfolios that provide documentation regarding faculty expectations, teaching methods, grading criteria, and student performance to link program level quantitative data to coursework, assessment of student learning, and program planning.
- Parkland College reported that about 80 percent of transfer and career and technical programs have made program improvements based on assessment results.
- Prairie State College created a team-taught interdisciplinary capstone course to determine if students were meeting the College's general education goals. The course was available by invitation only to students who had completed 45 or more semester credit hours toward an associate degree. Results indicated that, in general, students were meeting many of the general education objectives, but were falling far short of college expectations in writing. To address this finding, the College instituted exit examinations consisting of impromptu essays for the most advanced developmental and the introductory college-level English courses. Students cannot pass the course unless, in addition to being able to write a well-edited paper, they can demonstrate that they can also write a reasonably good argumentative essay in class.

Support for Assessment

As colleges move forward with the development and implementation of comprehensive program assessments, it is critical they foster buy-in from faculty and provide adequate professional development opportunities to support the creation of meaningful assessments. Some examples of approaches colleges are using follow:

- The Assessment Committee at Joliet Junior College awards assessment grants to faculty. Grant awards are based on the ability of the project to measure student outcomes, innovative design, and alignment with the College's mission and goals. Morton College also makes assessment mini-grants available to faculty teams.
- Lake Land College maintains an outcomes assessment website and publishes an assessment newsletter. These resources provide faculty with references, professional development schedules, links to assessment information, and examples of successful assessment plans and methods. South Suburban College also publishes an assessment newsletter for faculty to inform them of current local and statewide assessment issues.
- At Parkland College, resources available to faculty to help with assessment include programs

offered through the Center for Excellence in Teaching and Learning, the services of the Office of Institutional Research and Evaluation, an assessment website, library reserve holdings about assessment, Helpful Hint Cards to initiate the assessment process, samples of assessment plans from many areas of the college, and sample graduate and employer surveys.

Colleges also advance assessment initiatives systemically through institutional procedures and requirements. Selected examples follow:

- All new courses and programs at Illinois Central College are required to include plans to assess student learning. In addition, any existing program or course that is substantially revised and reviewed by the Curriculum Committee must include an assessment plan.
- At Black Hawk College, all faculty up for promotion in 2002-2003 and after must provide evidence of responsibility for assessment and use of outcomes to enhance student learning. The full-time faculty contract recognizes and supports an institutional commitment to student learning assessment.
- At Joliet Junior College, all programs of at least 30 semester credit hours are required to conduct program assessment at least once every three years.

Next Steps

All the colleges described plans to have comprehensive assessments in place for all general education, transfer, and career and technical education programs, and are moving forward with them. At the state level, ICCB staff will convene a group of college representatives during fiscal year 2003 to examine the program review process and determine what revisions may be necessary to incorporate additional accountability measures in the process. Program assessment will be a prominent topic in that effort. In addition, assessment of student learning will be a continuing topic of discussion with the college chief academic officers and career deans to identify the most effective ways to support the implementation of comprehensive program assessments to ensure continuous improvement of teaching and learning.

Performance-Based Incentives - District-Based Goal

In May 1998, the Illinois Community College Board approved a Performance-Based Incentive System (PBIS) with six statewide goals and a district-based goal. PBIS was designed to focus on teaching and learning, provide additional funds "at the margin," recognize high performance and improvement, have a long-term perspective with an extended pilot phase, and consist of meaningful goals and measures.

For the PBIS District-Based Component, colleges chose among three focus areas: Workforce Preparation, Technology, or Responsiveness to Local Need. Eight districts and one college from the City Colleges of Chicago district chose the area of workforce preparation, 21 districts chose the area of technology, and ten college districts chose a goal in the area of responsiveness to local need. During the initial year, colleges developed plans that included objectives and benchmarks. Peer review panels evaluated the plans and, once approved, colleges implemented them. In the ensuing years, colleges have submitted annual reports of progress in meeting their goals. Fiscal year 2002 marked the final year of the pilot phase of the PBIS District-Based Goals. The final reports submitted by the colleges will be reviewed by peer panels and colleges will receive feedback on the panels' assessments.

Further study will be given to the Performance-Based Incentive System to assess its impact and determine future directions beyond the initial pilot phase.

Analyses of the Results of Fiscal Year 2002 College Program Reviews

In 1983, the Illinois Community College System began a broad-based accountability initiative through regular review of instructional, administrative and support services programs. To ensure that programs continue to meet the needs of both students and employers, colleges conduct a review of programs once every five years. The review is based on three criteria: program need, program cost and program quality. The process continues to be a major accountability effort that has been flexible enough to address the constantly changing policy issues and priorities of the various community college districts. Due to the recent focus on accountability, particularly student learning, the program review process will be examined during fiscal year 2003 to determine revisions that may be needed to incorporate additional accountability measures and reduce duplicative reporting if possible.

This report summarizes the results of academic, career and technical education, adult education, and developmental education programs that were reviewed during fiscal year 2002. Summaries include both program strengths and the common challenges colleges face in keeping instruction relevant while maintaining cost-efficiency. Specific quality improvements at the local level are also highlighted. During fiscal year 2002, community colleges reviewed 84 academic, 681 career and technical education, and 26 adult and developmental education programs. A table illustrating this information by college can be found in Appendix Table 1.

Academic Program Review

Community colleges review academic programs at least once every five years and each college determines when such reviews occur. Every reporting year, an array of innovations and program improvements are described. In fiscal year 2002, 38 colleges reviewed a total of 84 academic programs, all of which were recommended for continuation with minor improvements. In their reports, colleges addressed assessment efforts, piloting online courses, continuing to internationalize general education, promoting students' analytical and writing skills, remediation, retention, and expanding applications of technology to increase student access to courses, to communicate with students and colleagues, and to facilitate student learning.

Program Need: In general, the need for academic coursework is apparent, as it provides the foundation for all degrees, whether occupational or transfer. General education courses develop a breadth of knowledge essential to a greater understanding of the world in which we live–its presence in the universe, its peoples, its environment, and its complexities. For specific disciplines, colleges examine enrollment and retention data to determine what program improvements may be necessary.

Program Cost: Community college program review reports provide evidence that costs are generally in line with state averages. Variations arise when numerous faculty are adjunct or long-tenured, when costly expenditures such as major technological upgrades occur at one time, and with particularly high or low enrollment numbers. Although technology typically increases costs, there are obvious benefits to students and institutions. For example, Triton College reports that online courses can increase the overall effectiveness of scheduling classrooms and provide instruction at convenient times for students.

Program Quality in Communications: Courses in English composition and speech are the cornerstone of the transfer curricula. A student who experiences difficulty in these courses is likely to be at a great disadvantage in other general education courses. As of summer 1999, all community colleges require that students must attain a grade of C or better in both writing courses. To ensure student success, Prairie State College initiated an English Composition Exit Exam, a fifty-minute pass/fail essay exam that is administered to all students in sections of English 101 in the 12th week of the semester. Students can attend workshop sessions at the Academic Assistance and Assessment Center to improve writing skills and re-take the exam in the 15th week. The College reports that the development of the exam fostered a new sense of collaboration and common goals among faculty and helped identify serious writing weaknesses. Malcolm X College will require students to write evaluations of their own work in English composition. Lewis & Clark Community College reports that students are using the Internet as their research tool of choice in writing term papers. As a consequence, a greater emphasis is being placed on teaching students to use I-research sources effectively. The communication department worked with the College's reference librarians and incorporated the Association of College and Research Libraries (ACRL) *Information Literacy Competency Standards for Higher Education* in all courses. In Speech, Spoon River College and numerous other institutions are teaching the use of PowerPoint and requiring this as a component of presentations. In addition, speeches are being videotaped for self-assessment purposes.

Community colleges also offer mass communication courses. Black Hawk College (BHC) secured the services of the City Editor of the Quad-City Times newspaper, who served as the student

newspaper advisor and journalism instructor. His willingness to work with BHC students is providing a significant real-world experience. An Illinois Central College mass communication faculty member is a participant in a National Science Foundation (NSF) curricular development program. Materials developed through this effort will be used at the college in addition to being offered for online instruction through the NSF.

Program Quality in Mathematics: Mathematics courses frequently are prerequisites to other courses in science, business and technology programs. As open-door institutions, community colleges spend considerable time and effort in developing initiatives to help students be successful in these courses. The appropriateness of this role is supported by national and state studies that indicate that the greater the amount of remediation required, the lower students' success rates will be in terms of retention, graduation, and transfer. Sauk Valley Community College recently hired a full-time remedial math instructor and established a "bridge" program for secondary remedial math students. Kaskaskia College is examining the possibility of restructuring developmental math courses to provide better services to remedial students, increase retention rates, and provide a smoother transition into college-level work.

Program Quality in Humanities and Fine Art: The word "community" in community colleges is exemplified in the disciplines of humanities and fine arts. In their reports, colleges describe art exhibits, theater productions, music concerts, and other events sponsored for the general public. Faculty are active as guest artists, performers, adjudicators, directors, producers, and guest speakers. Oakton Community College's (OCC) theater department plans an aggressive recruiting campaign to include workshops, judging high school competitions, and a festival of performing arts for high school theater departments. OCC became the first community college to produce an on-going dinner theater with a major hotel chain and the first theater in the midwest to produce a showcase highlighting the talent of special needs people. Illinois Central College (ICC) has a goal of encouraging and increasing enrollments in dance. Activities include sponsorship of Dance Day, sponsorship of a People's Dance Festival and appearances at school matinees. ICC has committed to implementation of the Gaganova method for classical ballet instruction. Already, benefits such as increased endurance and few injuries have been noticed. At the College of Lake County, a philosophy professor submitted a proposal to construct a Japanese Garden on the main campus. The goal of the garden is to act as a teaching tool to introduce students to Asian culture, philosophy and values. A grant was awarded to study Japanese garden design and its education issues.

Program Quality in Social and Behavioral Science: Courses in social and behavioral science often are required in business, education, social services, criminal justice and health care curricula. In the department of political science at Lincoln Land Community College (LLCC), students in the Model United Nations (MUN) Program have participated in MUN simulations in New York, representing key countries involved in global political issues, including Kurdistan and Iran, most recently. Students in the Model Illinois Government (MIG) program have participated in the MIG simulation in Springfield at the state capitol complex. They have been elected to party leadership positions and one student was selected as the outstanding first year delegate. LLCC political science faculty have been repeatedly recognized for outstanding teaching including receipt of the Master Teacher Award, NISOD Excellence in Teaching Award, and the Award for Innovative Excellence in Teaching, Learning & Technology from the Center of the Advancement of Teaching & Learning.

Program Quality in Physical and Life Sciences: Chemistry, physics, and biology courses are required for many majors including pharmacy, dentistry, medicine, engineering, horticulture, and various allied health programs such as nursing, medical lab technology, and dental hygienist. The growth in health care programs has had a positive effect on science course enrollments. For example, the College of DuPage reports that enrollment in online chemistry increased by an average of 44 percent in the last three years. The college's meteorology program includes a weather forecasting component using real-time computer graphics and data from NOAA, the National Weather Service, and commercial vendors of weather data. Parkland College science faculty instituted course specific retention plans. For example, faculty agreed to improve retention by 1 percent in each chemistry course per year. Among the actions that the chemistry faculty will take to achieve these goals are contacting students who have missed two consecutive class sessions, requiring students to attend a meeting with the professor early in the semester, and working closely with the Cooperative Learning Center to develop helpful content and study skills modules. During the past year, the Department of Natural Sciences sponsored the Institute for Science Education. Through the Institute, lectures, short courses, seminars, workshops and other credit and noncredit programming were offered in an attempt to promote science literacy in the community. To improve retention in chemistry courses at William Rainey Harper College, faculty are proposing adding another contact and credit hour to general chemistry for additional problem solving and discussion time. In addition, completion of intermediate algebra will be required as a prerequisite, instead of a co-requisite. South Suburban College has a cooperative arrangement with Governors State University (GSU) whereby student chemistry lab samples can be read on GSU's Nuclear Magnetic Resonance instrument and the data can be retrieved via the web. This project is funded by a National Science Foundation Grant. Harold Washington College's physical science and biology faculty are working with the University of Illinois at Chicago, Chicago State University and Northwestern University faculty to improve teacher preparation and excellence in teaching for Chicago Public School teachers. Malcolm X College attributes a major increase in physical science enrollments to the impact of the Illinois Articulation Initiative, which requires that students take both a life science and a physical science course to complete general education requirements. The College also reports that a service learning component to science courses is planned.

Adult Education and Family Literacy, English as a Second Language, and Developmental Education Program Review

Colleges are required to review their Adult Education and Family Literacy, English as a Second Language (ESL), and Developmental Education programs at least once every five years, according to a schedule developed by each college. This year, 26 related programs were examined, and all were recommended for continuation with minor improvements.

Program Need:

Adult Education and Family Literacy programs

Adult Education and Family Literacy programs serve students 16 years of age and older who have less than a high school education and are no longer enrolled, or have never been enrolled in school. The programs provide education and support services for students wishing to improve their basic skills or to acquire a high school diploma or its equivalent - General Education Development (GED). These programs may also serve students who are determined to, through a skills assessment, lack the basic skills necessary to succeed in employment or further education and training. Students may take related instruction through programs offered by community colleges, community-based organizations, or other educational agencies. Eleven colleges reported on ABE/ASE and ESL programs. All colleges reporting indicated a continued need for ABE/ASE programs. The majority of colleges reported increasing or stable enrollments in ABE/ASE programs, with several colleges citing an increase in enrollments of younger student populations. Colleges reporting indicated increased completions, but continued difficulty in retention beyond the basic level. According to the *2002 Data and Characteristics of the Illinois Community Colleges*, the total number of students enrolled statewide in Adult Basic and Secondary Education programs at community colleges was 55,912 students during fiscal year 2001.

English as a Second Language programs serve non-native English speaking students by providing reading, writing and math instruction for gaining or improving English language skills. All colleges reporting indicated a continued need for ESL programs. Enrollments were reported as increasing for most colleges, and completion and retention rates also remained stable. ESL programs continue to enroll more students that other areas of adult education statewide. According to the *2002 Data and Characteristics of the Illinois Community Colleges*, the total number of students enrolled in English as a Second Language programs at community colleges was 75,830 students during fiscal year 2001.

Developmental Education programs

Community college developmental education programs are essential to serve students whose skills in English, mathematics or reading are below college level. Accessibility and developmental education are inseparable, because many students need to improve their basic skills to succeed in college. Community colleges in Illinois continue to provide the vast majority of developmental education courses available through the state's higher education institutions. Nine colleges submitted summaries of reviews of their developmental education programs. Six colleges reported on all developmental education, which includes English, math and reading, the remaining colleges reported on only one or two of those developmental areas. All nine indicated that based on placement test scores there is an increased need for developmental programs for both recent high school graduates entering college, and for adult students who need to update their skills or who do not possess sufficient skills to succeed in college-level coursework. The majority of colleges indicated steady or increasing enrollments in these courses. Retention rates remained steady; however, many colleges cited the difficulty in keeping students enrolled through a sequence of developmental courses. Completion rates for English and reading courses remained steady; however, several colleges indicated completion of developmental math sequences had decreased. Several colleges reported that one of the biggest barriers to enrollment, retention and completion in these programs is the perception of students that they do not need developmental education. Despite this

perception, colleges reported the need for developmental education is especially evident with math and reading.

Program Cost: The majority of colleges reporting indicated their Adult Basic and Secondary Education, English as a Second Language, and Developmental Education programs were cost effective. High enrollments and low expenditures accounted for the lower costs of these programs. In addition, many colleges share resources for these programs with their community education departments. A few colleges indicated higher expenses during the last year due to hiring of additional instructors and purchasing new instructional materials.

Program Quality: In all of the areas reviewed, colleges identified common program strengths as knowledgeable and experienced instructors, staff development opportunities, flexible schedule options for students (i.e., day, night, weekend, intensive, and online formats), and the availability of instructional support services (i.e., tutors) to students. Common program weaknesses were cited as the need for full-time faculty, the need for increased recruitment efforts, inadequate facilities and high turnover among part-time staff.

Specific quality improvements in ABE/ASE and ESL programs include Lincoln Land Community College's efforts to incorporate volunteer tutors into ABE/ASE classrooms to work with lower functioning students, and the addition of computer assisted instruction as a teaching supplement. Olive-Harvey College plans to address student conduct issues and improve retention by linking positive behavior with part-time job placement. Kishwaukee College, currently the only provider of ABE/ASE and ESL programs in the district, plans to expand its offerings through joint partnerships with other state and local agencies. McHenry County College (MCC) recently restructured its entire adult education program by eliminating duplication of efforts through the creation of two positions, one focused on teaching and learning, the other focused on recruitment, retention and student support services. MCC feels this has vastly improved the overall effectiveness and efficiency of its programs.

Specific quality improvements in Developmental Education programs include Danville Area Community College's recent implementation of developmental math courses online; Prairie State College recently implemented a new assessment exam, an English Composition Exist Test, given to all developmental English students during their 13th week, that measures the ability of students to write a clear, coherent essay. The test should help ensure that students move on to the next English course with the required skills. Heartland Community College recently revised its developmental math sequence to better serve its two primary student audiences, one tailored towards students who need to fulfill their math requirement as their next course, and the other designed for those students eventually planning to take calculus, and also implemented a fast-track alternative to the developmental reading program which will allow students to complete their coursework in 12 versus 16 weeks. Other commonly reported quality improvements included integration between English and reading developmental coursework, and the development of course and exit assessments.

All career and technical education programs are reviewed within a five-year period. Each year community colleges review specific career and technical education programs and submit their findings to the Illinois Community College Board.

Based on the analysis of their program review outcomes, colleges can elect to (1) continue programs with minor improvements; (2) continue programs with significant modifications; (3) discontinue or eliminate programs; or (4) schedule programs for further review. Reasons for modifying programs might include updating a curriculum to better suit the needs of local business, while elimination of programs might be based on low enrollments and high costs. Many colleges choose to address these concerns through further review of their programs. According to the program review summaries provided by each college, 536 career and technical education programs were continued with minor improvements, 38 programs were significantly modified, 59 programs were identified for elimination, and 48 programs were scheduled for further review during the coming year. A table illustrating this information can be found in Appendix Table 2, and a list of curricula identified for elimination can be found in Appendix Table 3.

A. Responses to Analysis of Information from the *Follow-Up Study of Fiscal Year 2000 Occupational Program Graduates*

Occupational Program Graduates. Colleges routinely use information from the *Follow-Up Study of Occupational Graduates* in their reviews to add the "customer" perspective. The *Follow-Up Study of Fiscal Year 2000* identified concerns in three areas of follow-up study response rates, significant numbers of program graduates (1) working out of their field of preparation, or (2) working part-time, and the relevance of one particular program area in light of rapid changes in computer technology. Following is a summary of information colleges provided regarding these identified concerns.

Colleges that did not meet the appropriate criterion for the survey of fiscal year 2000 occupational graduates were asked to report on their progress for increasing their response rates this year.

ICCB minimum criteria for an equitable follow-up survey are 50 percent response rate for surveying 50 or more graduates, and 60 percent response rate for surveying less than 50 graduates. Only five colleges did not meet or exceed these criteria for the survey of 2000 occupational graduates. Over the years, most colleges have developed effective methods of obtaining meaningful response rates, but for many it continues to be a labor-intensive process. Strategies used most often to improve response rates include multiple survey mailings, reminder postcards, and follow-up telephone calls. Oakton Community College emphasized that telephone numbers and addresses for graduates are often no longer accurate and there is no forwarding information. In fiscal year 2001, four of the City Colleges of Chicago (CCC) did not meet the minimum criteria for follow-up survey responses. The CCC Office of Planning and Research, in combination with institutional researchers from each of the seven district colleges, have implemented a three-phase approach to the survey of all graduates that involves the individual colleges in the first two phases and an independent research group to carry out the third phase. For the survey of 2002 occupational graduates, the seven colleges collectively met the minimum criteria for survey responses, although not all colleges did so individually.

Graduates of programs in Business Systems Networking and Telecommunications, Business Computer Programming/Programmer, Medical Transcription, Industrial Electronics Installer/Repairer, and Computer Installer/Repairer exhibited unemployment rates higher than the 6.7 percent average for all respondents to the survey, and additionally, graduates of Business Systems Networking and Telecommunications reported a higher than average rate of individuals working outside the field and concerns about labor market information, job preparation, and career planning. Colleges that offer these programs were asked to examine the programs to determine if the findings in the statewide study apply locally, and, if so, what program improvement initiatives are necessary to address the problem.

For a number of colleges that offer these programs, the statewide findings of the survey did not apply locally. For those that have programs that mirror the statewide findings, colleges reported as follows.

Business Computer Programming/Programmer - Richard J. Daley College reported that its Business Computer Programmer program appears to more readily meet the needs of those students seeking preparation for transfer to a four-year program than those seeking job preparation for entry into the industry. The College plans to offer a more workforce-oriented course to align with employment opportunities. Malcolm X College plans to combine the Computer Information Systems (CIS) department with the Mathematics department, which will allow talented mathematics instructors to teach CIS courses and students to receive more interdisciplinary training. The College is also developing coursework in the areas of Web-based commerce, networking, and Web design. Sauk Valley Community College plans to re-evaluate its program in fiscal year 2003 with the intent of retooling curricular content to match workforce needs.

Business Systems Networking and Telecommunications - Several colleges reported that unfavorable economic conditions have had an impact on employment opportunities for recent graduates. In addition, Lincoln Trail College indicated that many graduates who report being unemployed or working in an unrelated field do so because they do not wish to relocate to find employment related to their program of study. The College advises students that there is a likelihood that they will need to relocate to find employment, and reported that out-of-district employment opportunities are regularly available through career fairs. Joliet Junior College reported that most program graduates were seeking to develop skills related to enhanced job responsibilities and are employed in fields related to computers, although networking is often not their primary employment classification. Oakton Community College indicated that many program graduates reported that they took courses for personal interest or self-development rather than career related reasons. Illinois Central College indicated that its programs have been very specific to one software product. Some businesses are abandoning that particular software product because it is expensive. The College is reviewing its curricula to make them more generic. City Colleges of Chicago will establish a districtwide advisory committee for CIS programs. In addition to providing advice on employer needs and curriculum changes, it is hoped that the broad-based committee will result in additional opportunities for internships and work-based learning experiences for students.

Medical Transcription - Colleges indicated that an internship component strengthened students' employment opportunities, but some indicated that it is difficult to identify sufficient internship sites. For example, Illinois Central College reported that there is a need for medical transcriptionists in the

Peoria medical community. However, the major medical centers are currently outsourcing transcription to service companies, resulting in few internships available for ICC students. Several colleges indicated that there are few career advancement opportunities for medical transcriptionists. That may be the reason that students in the programs tend to already be employed in health care professions and, thus, do not identify medical transcription as their primary field of employment.

Industrial Electronics Installer/Repairer and Computer Installer/Repairer - Issues related to these two programs appear to be very similar. Both are fields in which technology changes rapidly, necessitating continual curriculum updating to keep programs current with employers' needs. In addition, both are fields with high demand for skilled workers. Substantial numbers of students exit programs early, or "job out," for employment in related fields. Wabash Valley College reported that many students complete programs in computer installation because they need the skills for expanded job responsibilities, but they do not consider that their primary field of employment. That may be an explanatory factor for the higher than average number of program completers who report working "out of field" in both of these program areas.

The Computer Operator profession appears to be disappearing as information technology evolves. Programs offered in the state tend to be small, and graduates who responded to the survey were dissatisfied with their employment and the pay received by completers was low. Colleges that offer programs in this occupational area were asked to carefully evaluate them to determine if they are still justified, or if they are nearing the end of their life cycles.

College responses to this request support the premise that Computer Operator programs, as structured in the past, are losing their relevance to the workplace. Four colleges reported that they discontinued their programs prior to the fiscal year 2002 review period. All indicated that students are more attracted to other computer-related programs, such as CIS and Office Administrative Systems, that are more relevant to today's workforce. It appears that the skill set required for a computer operator is losing its relevance as a stand-alone occupational preparation, and is becoming a skill that is required within many related occupations. In fact, most colleges that have chosen to continue offering Computer Operator programs have substantially revised the curriculum, or plan to do so.

Conclusion: Even though the community colleges provided valuable information about the issues identified in the *Follow-Up Study of Fiscal Year 2000 Occupational Program Graduates*, there is still a need to address the underlying issues, such as low salaries, program relevance, and

inconsistent employment trends, in some of these occupational areas. During fiscal year 2003, ICCB staff will convene a work group of college representatives to determine the most effective way of addressing these and other accountability issues through program review.

B. Summaries of the Career and Technical Education Program Reviews conducted during Fiscal Year 2002

Please note: *For all of the following career and technical education program summaries, the number of colleges offering training may not match the number of colleges that reported on the program status chart because some programs are currently inactive or too new to conduct a meaningful review or colleges may have notified ICCB of circumstances that warrant postponing the review.*

Management Information Systems & Business Data Processing
Programs that prepare individuals to provide and manage data systems and related facilities for processing and retrieving internal business information, training personnel, and responding to external data requests.

Number of Colleges Offering Training	**5**
2001 Follow-up respondents employed or continuing education	**88.9%**
2001 Follow-up respondents working full-time	**71.4%**
2001 Follow-up respondents working in related jobs	**85.7%**

Results of This Year's Program Review: Three colleges reported plans to continue their programs in management information systems and business data processing, and one college reported plans to significantly modify its programs during the coming year.

Program Need: Nationally, employment in computer and information technology related occupations is expected to grow much faster than the average for all occupations through 2008. Illinois is projected to mirror the national trend as well. According to IDES, "computer programmers" and "systems analysts" are projected to be two of the fastest growing occupations statewide through 2008. The *Illinois Job Outlook in Brief* brochure ranks computer programmers as a "best bet" occupation, one that offers high employment growth and a high wage for its education level. Despite employment projections data, the information technology industry both nationally and statewide, has experienced a decrease in employment as a result of an economic downturn since September 11, 2001. Some colleges have experienced a decrease of interest in computer-related educational programs; however, employment forecasters predict that despite economic conditions, information technology will continue to provide entry-level employment and advancement opportunities in computer-related occupations for individuals trained at the community college level.

Locally, all colleges reporting indicated the need for programs related to computer information technology. Enrollments in related programs at most colleges have remained steady. Colleges expressed the need to keep revising and re-configuring programs to meet the constantly changing needs of the information technology field.

Program Cost: Most colleges reporting indicated that programs in management information systems and business data processing were cost effective. Many if not all courses in these programs are shared among other related programs which keeps unit costs down.

Program Quality: Common program strengths were reported as knowledgeable and experienced faculty, flexible course scheduling (i.e., day, night, weekend formats and online course offerings), and shared coursework among related information technology programs which allows students to easily move from basic- to advanced-level certificates to A.A.S. degree programs.

Business and Computer Programming
Programs that prepare individuals for using software theory and programming methods to solve business data problems, and includes instruction in programming languages, designing customized software applications and related processes.

Number of Colleges Offering Training	**45**
2001 Follow-up respondents employed or continuing education	**88.1%**
2001 Follow-up respondents working full-time	**85.5%**
2001 Follow-up respondents working in related jobs	**73.1%**

Results of This Year's Program Review: Twenty-eight colleges reported plans to continue their programs in computer programming, four colleges reported plans to significantly modify their programs, four colleges reported plans to discontinue programs, and three colleges reporte scheduling their programs for further review during the current year.

Program Need: Nationally, employment of "computer programmers" is expected to increase much faster than the average for all occupations through 2010, according to the U.S. Department of Labor. Likewise, according to IDES employment of "computer programmers" is expected to increase nearly three times the statewide average employment for all occupations through the year 2008. The *Illinois Job Outlook in Brief* brochure cites "computer programmers" as a "best bet" occupation, one that offers high employment growth and a high wage for its education level.
Locally, demand for individuals with programming experience in multiple languages, but particularly advanced programming languages, remains high.

Districts seem to be experiencing a range of economic conditions across the state that have affected this career field. Some districts reported increasing or steady enrollments, while others indicated enrollment had decreased enough to warrant discontinuing several programs; some districts reported completions at an all time high, while others indicated continued problems with students "jobbing-out" before program completion; and some districts reported high community interest for advanced or unique programming languages, while others indicated lack of community interest or the necessary job openings to sustain an educational program in such specialized areas. Many districts indicated that their programs have either gone through extensive updating or were scheduled to go through updating during the coming year. Plans to discontinue programs were based on low enrollments and high costs.

Despite a slight decrease in employment in the information technology field, as a result of an economic downturn since September 11, 2001, both nationally and in Illinois, employment forecasters predict that information technology will continue to provide entry-level employment and advancement opportunities in computer-related occupations for individuals trained at the community college level. Colleges maintain their responsiveness to the ever-changing needs of the information technology industry by offering new, unique short-term training programs and specialized options to existing degree programs.

Program Cost: The majority of the colleges planning to continue their programs indicated they were cost-effective. Programs in computer programming typically offered a higher unit cost due to the expensive nature of the software and hardware required for training. In addition, updates to existing software, hardware and related instructional materials increases unit costs. Many colleges reported absorbing the costs of professional development for instructors to stay technologically current kept unit costs high.

Program Quality: Common program strengths reported by the colleges include a knowledgeable and experienced full- and part-time faculty, supportive and active advisory committees, up-to-date curriculum, internship experiences included within the curriculum, flexible course offerings (i.e., day, night, weekend and online formats), and the sharing of resources, such as computer hardware, software and lab facilities with other programs.

Program weaknesses included high cost of equipment and facilities, the need for continuous review and update of the curriculum to maintain responsiveness to the needs of local information technology employers, the need for continuous professional development for staff, lack of marketing, lack of advisory input, and retention of part-time faculty.

Colleges gave several specific examples of quality improvements. For example, Shawnee Community College plans to convert one of its programming labs into a wireless lab; Carl Sandburg College has added several advanced-level programming courses in Java, C++ and Visual Basic, and also expanded its existing CIS degree to allow specialization in e-business; John Wood Community College has expanded the membership of its Advisory Board to represent a broader scope of information technology employers; Kaskaskia College along with 20 other colleges expressed plans to add to their online course offerings; and Parkland College recently completed an overhaul of its animation program, one of the few in the Midwestern United States, to reflect "Hollywood-style" special effects, 3D computer animation, and 3D gaming coursework.

Business Systems Analysis & Design
Programs that prepare individuals to analyze business information needs and design appropriate data system solutions, and includes instruction in information requirements analysis, specification development and writing, prototype evaluation, and application interfaces.

Number of Colleges Offering Training	**6**
2001 Follow-up respondents employed or continuing education	**80.0%**
2001 Follow-up respondents working full-time	**77.8%**
2001 Follow-up respondents working in related jobs	**55.6%**

Results of This Year's Program Review: Five colleges reported plans to continue their programs in business systems analysis and design.

Program Need: Nationally, employment in computer and information technology related occupations is expected to grow much faster than the average for all occupations through 2008. Illinois is projected to mirror the national trend as well. According to IDES, "computer programmers" and "systems analysts" are projected to be two of the fastest growing occupations statewide through 2008. Despite employment projections data, the information technology industry both nationally and statewide, has experienced a decrease in employment as a result of an economic downturn since September 11, 2001. Some colleges have experienced a decrease of interest in computer-related educational programs; however, employment forecasters predict that despite economic conditions, information technology will continue to provide entry-level employment and advancement opportunities in computer-related occupations for individuals trained at the community college level.

Locally, all colleges reporting indicated the need for programs related to computer information technology. Enrollments in related programs at most colleges have remained steady. Colleges expressed the need to keep revising and re-configuring programs to meet the constantly changing needs of the information technology field. In particular, demand for training programs in database design, warehousing and administration is on the rise as businesses explore more efficient ways to manage and store historical and current data.

Program Cost: Most colleges reporting indicated that programs in business systems analysis and design were cost effective. Several colleges reported that unit costs were slightly higher than the statewide average because software expenses in this program area are high. Many if not all courses in these programs are shared among other related programs which keeps unit costs down.

Program Quality: Common program strengths were reported as knowledgeable and experienced faculty, flexible course scheduling (i.e., day, night, weekend formats and online course offerings), and shared coursework among related information technology programs which allows students to easily move from basic to advanced level certificates to A.A.S. degree programs. Program weaknesses cited included the need to keep curriculum up-to-date with a constantly changing information technology field, and lack of advisory committee input.

Illinois Eastern Community Colleges recently reorganized their computer information systems program to allow for specialization in several areas including hardware, software design, networking and web page design.

Business Systems Networking & Telecommunications

Programs that prepare individuals to evaluate and resolve business data system hardware and software communication requirements, and includes instruction in networks, telecommunications, hardware and software interfaces, computer network design, and distance communications.

Number of Colleges Offering Training	**39**
2001 Follow-up respondents employed or continuing education	**92.5%**
2001 Follow-up respondents working full-time	**88.5%**
2001 Follow-up respondents working in related jobs	**73.8%**

Results of This Year's Program Review: Twenty-eight colleges reported plans to continue their programs in networking, two colleges reported plans to discontinue their programs, and one college reported scheduling its programs for further review during the coming year.

Program Need: Nationally, employment of "network administrators and technicians" is expected to increase much faster than the average for all occupations through 2010, according to the U.S. Department of Labor. Statewide employment in information technology is also expected to increase faster than the average for all industries through 2008, according to IDES. Locally, demand for networking professionals remains high, particularly in vendor-specific networking technologies.

All colleges reported there is a continued need for programs in networking. Most districts indicated increasing or steady enrollments, and just a few indicated decreasing enrollments, which was attributed to an overall decrease in college enrollments and a slower growth in information technology jobs available locally. While completion rates remained average for these programs, placement rates remained high. Follow-up surveys indicate that the majority of students are finding jobs within their field of study. Students exiting programs early, or "jobbing-out", are also finding employment in related fields. Vendor-specific courses and programs, CISCO in particular, continue to be of interest locally and a number of colleges reported their existing or planned partnerships with the CISCO Academy.

Another factor affecting need for information technology related programs offered by community colleges is competition from private institutions. Many colleges, especially those in larger metropolitan districts, reported that competition from private two-year technical and four-year schools in this subject area has been driving the need for more flexibility in course and program offerings on their campuses. For the most part, colleges have been proactive in meeting this challenge by offering day, evening, weekend, accelerated, and online delivery of courses.

Program Cost: All of the colleges planning to continue their programs indicated they were cost-effective. Programs in networking typically offered a higher unit cost due to the expensive nature of the hardware required for training. In addition, updates to existing hardware and related instructional materials increase unit costs. Many colleges reported absorbing the costs of certification exams for faculty and/or students which also contributes to the expense of networking programs.

Program Quality: Common program strengths reported by the colleges include a knowledgeable and experienced full- and part-time faculty (many colleges reported that most or all of their faculty are industry-certified), supportive and active advisory committees, up-to-date curriculum, internship

experiences included within the curriculum, articulation with secondary school and baccalaureate degree programs, the number of various vendor-specific certifications offered on campus, flexible course offerings (i.e., day, night, weekend and online formats), and the sharing of resources, such as computer hardware, software and lab facilities (many colleges reported the use of removable hard drives which allowed them to share equipment and lab facilities with related computer programs).

Program weaknesses included high cost of equipment and facilities, and the need for continuous review and update of the curriculum to maintain responsiveness to the needs of local employers, the need for continuous professional staff development, lack of marketing, lack of advisory input, and retention of part-time faculty.

Eleven colleges reported specific activities related to additions and revisions of courses and programs in the networking area. This included plans for developing new courses, new "ladder" certificate programs, and reconfiguring existing degree programs to allow more specialized options for students. Other specific quality improvements included efforts by Moraine Valley Community College and Prairie State College to work closely with the noncredit department of their colleges in the information technology area. Both colleges indicated this as an effective cost-saving and facilities/resource-saving measure. Southeastern Illinois College, whose CISCO Networking programs are still relatively new, has experienced great success in articulating with area high schools, and now plans to expand those partnerships with 16 local CISCO Academies.

Business Computer Facilities Operator
Programs that prepare individuals to operate mainframe computer and related peripheral equipment in business settings.

Number of Colleges Offering Training	**13**
2001 Follow-up respondents employed or continuing education	**78.6%**
2001 Follow-up respondents working full-time	**90.0%**
2001 Follow-up respondents working in related jobs	**60.0%**

Results of This Year's Program Review: Three colleges reported plans to continue their programs in business computer operations, one college reported plans to discontinue its program in computer operations, and two colleges reported scheduling their programs for further review during the coming year. Four colleges discontinued or inactivated their programs prior to the fiscal year 2002 review period due to low enrollments.

Program Need: While nationally, employment in the information technology field is still projected to increase, demand for individuals with sole computer operations skills is decreasing. According to IDES, employment of "computer operators" is expected to decrease by over 17 percent through the year 2008; this equals nearly a 2 percent decrease in employment each year for the next six years. While the majority of colleges reporting indicated there was still a need for programs in computer operations, they indicated that interest in these educational programs had declined. In response, several districts have cut back course offerings in this area or looked for ways to combine this coursework into other programs. Four of the colleges planned to continue offering their programs,

some with major revisions, while one college discontinued its program last fall due to lack of interest.

Program Cost: All of the colleges planning to continue their programs indicated they were cost-effective. Programs related to mainframe operations or programming offered a higher unit cost due to the expensive nature of the hardware and software required for training.

Program Quality: Common program strengths were reported as knowledgeable and experienced faculty, flexible course scheduling (i.e., day, night, weekend formats and online course offerings), and a supportive and active advisory committee. Program strengths cited included high cost of hardware, software and lab facilities.

Journalism, Radio & Television Broadcasting
Programs that prepare individuals to gather, process and deliver news in professional print formats, or plan, produce, and direct entertainment and informational programs in the radio and t.v. broadcast media.

Number of Colleges Offering Training	**6**
2001 Follow-up respondents employed or continuing education	**84.6%**
2001 Follow-up respondents working full-time	**90.0%**
2001 Follow-up respondents working in related jobs	**80.0%**

Five program review reports were received this year in the areas of journalism, radio and television broadcasting communication technology. As a result, ten community college programs will be continued with minor improvements, and five programs have been scheduled for further review in the coming year.

Program Need: According to *Employment Projections 2008* from the Illinois Department of Employment Security, statewide employment forecasts for careers related to training in journalism, radio and television broadcasting are mixed. While job growth in "writer and editor" occupations is expected to increase 30.4 percent between 1998 and 2008, providing an estimated 4,139 annual job openings, many other occupations related to this training are expected to experience employment reductions during this period. For example, between 1998 and 2008, "radio & television announcer" positions are expected to contract by 256 (-15.1 percent) and employment opportunities for "reporters and correspondents" are expected to decrease by 104 positions (-3.3 percent).

Program Cost: The colleges indicate that their journalism, radio and television broadcasting programs are cost-effective. Many report that although significant high-cost equipment purchases have recently been made which increased unit cost, these purchases put the programs in a position to be current and competitive for years to come. Also, many colleges have worked to maintain cost-effectiveness by taking advantage of grant opportunities to re-equip and update facilities on a regular basis.

Program Quality: Common program strengths in journalism, radio and television broadcasting as reported by the colleges include well-qualified faculty members, upgraded technology (including

digital editing stations), student affordability, strong partnerships with business, high schools and universities, steady employer demand for program graduates, and the applied nature of the curriculum that allows students to work on functional college radio stations. Weaknesses include limited program budgets that must support equipment upgrades (including pending high-definition television upgrades) in order to keep up-to-date with industry standards, and poor program completion rates due to high industry demand for workers.

Specific quality improvements reported by the colleges included Kennedy-King College's (KKC) receipt of an Illinois Board of Higher Education - Higher Education Cooperation Act (HECA) grant. KKCs Radio and Television Broadcasting Department, in conjunction with Chicago State University and the Chicago Public School system received the grant for the project "Minorities in Media", which will upgrade the radio station at a local high school and upgrade digital audio systems for a local radio station. The College will serve as a host for the high school media fair and use the event as a recruitment tool for its programs, which articulate into programs at Chicago State University. This partnership expands and enhances the College's K through 16 initiatives.

Three other colleges, Parkland College, Lake Land College, and Lewis & Clark Community College all reported re-formatting their student-operated radio stations to broadcasting 24 hours per day, seven days per week. This, along with other music style changes, has attracted larger audiences and increased interest in their related college programs.

Communications Technologies: Educational/Instructional Technologies and Radio & Television Broadcasting Technologies

Programs that prepare individuals to assist in the design and presentation of educational information through the use of technological media, and operating related technical equipment; or assist in the production of radio and television programs, films and recordings, and operating related technical equipment.

Number of Colleges Offering Training	**8**
2001 Follow-up respondents employed or continuing education	**100%**
2001 Follow-up respondents working full-time	**60.0%**
2001 Follow-up respondents working in related jobs	**66.7%**

Results of This Year's Program Review: Five program review reports were received this year in Communication Technologies. As a result, five community college programs will be continued with minor improvements, one program will be significantly modified, and one program will be discontinued.

Program Need: According to *Employment Projections 2008* from the Illinois Department of Employment Security, statewide employment forecasts for careers related to training in communications technologies are positive. Job growth in "communications equipment mechanic" careers is expected to increase 6.4 percent between 1998 and 2008, providing an estimated increase of 351 annual job openings. While this outlook is positive, it falls below the overall statewide growth forecast of 12.7 percent. The highest specific growth for the period of 1998-2008 is estimated in "central office/PBX installers/repairer" occupations, with 20.8 percent growth or 260 job openings forecasted. The lowest expectation for that period is in "radio mechanics", which is

projected to decrease by 23.4 percent or 36 positions. Nearly all of the colleges reported strong industry demand for trained workers in the area of Communications Technology. Given this demand, students often choose to enter the workforce prior to completing the curriculum, creating a negative impact on program completion rates.

Program Cost: The four colleges that indicate they will continue their communications technologies programs report that, although these programs require significant amounts of expensive equipment to operate, they are cost-effective. Colleges noted that they are often able to share resource and material expenses with other related programs in order to keep costs within acceptable parameters. However, several reports noted that significant equipment upgrades, most notably a switch to digital broadcast equipment, are pending and could increase costs in the future.

Program Quality: Common program strengths in Communications Technologies as reported by the colleges include well-qualified faculty members, state-of-the-art equipment that keeps students abreast of industry changes, an application-based curriculum that allows students to work with equipment used at functional college radio stations, and strong student demand. Weaknesses include poor program completion rates due to high industry demand for workers, and the continual need for equipment upgrades in order to keep up-to-date with industry standards.

Computer Engineering Technology
Programs that prepare individuals to assist computer engineers in designing and developing computer systems and installations, and include instruction in computer electronics, systems installation and testing, and peripheral equipment.

Number of Colleges Offering Training	**4**
2001 Follow-up respondents employed or continuing education	**47.1%**
2001 Follow-up respondents working full-time	**62.5%**
2001 Follow-up respondents working in related jobs	**50.0%**

Results of This Year's Program Review: Please note that all colleges reporting in this area reviewed programs in computer maintenance. Information from these reports has been included with the summary for Computer Maintenance Technology.

Electrical, Electronic & Communications Engineering Technology
Programs that prepare individuals to assist electrical and electronics engineers in designing and developing electrical and electronic systems and installations, and include instruction in electrical circuitry, prototype development, systems analysis, installation, and maintenance.

Number of Colleges Offering Training	**35**
2001 Follow-up respondents employed or continuing education	**100%**
2001 Follow-up respondents working full-time	**95.2%**
2001 Follow-up respondents working in related jobs	**67.5%**

Results of This Year's Program Review: Twenty-two colleges reported plans to continue their programs in Electrical Engineering Technology implementing minor improvements, three colleges plan to significantly modify their programs, and two colleges plan to discontinue part or all of their programs.

Program Need: Statewide employment of "electrical engineering technicians" is expected to increase by 21.4 percent according to the Illinois Department of Employment Security's *Employment Projections 2008.* Moreover, the *Illinois Job Outlook in Brief* brochure, lists "electrical engineering technicians" as one of Illinois' Top Occupations by Annual Openings 2001. The majority of the colleges indicated strong and stable enrollments, with emphasis being placed on local economic need and job opportunities. For example, Elgin Community College and Lake Land College attribute their successful programs to local industry support and need for the programs offered. Several colleges referenced the job market needs deterring from program completion. Companies do not require the students to have a certificate or degree, which creates a tendency for students to leave once they have obtained the skills and knowledge required for employment or advancement before their program is completed. The majority of colleges expressed a need for the programs and will continue to work toward producing successful employable students.

Program Cost: The majority of colleges reported their programs were cost-effective in comparison with other similar programs. High student enrollments, community and local business support, dual credit, and comparable curricula are all attributes contributing to the cost-effectiveness of these programs at all the colleges. At the same time, high lab hours and expensive equipment were reported as the most common reasons for higher than average program costs. Colleges indicated that they solicit donations from local business for equipment and software to keep cost down.

Program Quality: Common program strengths reported by the colleges included committed, knowledgeable and experienced faculty, industry partnerships, dual credit, availability of state-of-the-art technology and equipment, local economy, broad-based curriculum, job availability upon completion, real life applicability and internships. Program weaknesses included a need for reviewing curriculum in certain areas, students' disinterest in program completion, lack of suitable space and/or ample up-to-date equipment, and lack of nontraditional students and funding.

Numerous quality improvements were reported by the colleges. The College of DuPage developed a multi-disciplinary integrated curriculum called "MECOMTRONICS", with support from a National Science Foundation (NSF) grant. Southwestern Illinois College is considering adjusting its lab fees to offset normal operating cost and providing dual credit electrical/electronics classes for high school students. Illinois Central and Rock Valley Colleges have equipped their labs with new oscilloscopes, and Kankakee Community College is working to improve program enrollments by working with the director of marketing to develop a strategic marketing plan to promote the Electronics Technology Program.

Biomedical Engineering & Related Technologies
Programs that prepare individuals to assist biomedical engineers in designing and developing biological or medical systems and products.

Number of Colleges Offering Training	**3**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results of This Year's Program Review: Two colleges reported plans to continue their biomedical electronics programs with minor improvements.

Program Need: "Biomedical engineers" is a small occupation statewide, with a very small number of colleges offering related programs. Statewide employment of "biomedical engineers" is expected to increase by 7.4 percent, slightly less than the statewide average for all occupations, according to the Illinois Department of Employment Security's *Employment Projections 2008*. South Suburban College's programs account for approximately 60 percent of community college enrollment in this field. Although South Suburban College's enrollment has been fairly steady over the past few years, it is a small program that adequately provides the number of technicians needed in Cook County. Richland Community College, on the other hand, has experienced a slight decline in biomedical engineering course enrollments. In the 2001-02 college year, twelve students graduated with biomedical engineering degrees or certificates from Richland Community College. Both colleges, however, reported a continued need for this program in their districts.

Program Cost: Colleges reported high unit costs for this program area. Contributing to higher costs at South Suburban College was small enrollment combined with equipment costs and higher faculty salaries. Despite the overall high cost for operating this program, unit costs have decreased over the last two years by a substantial amount. Richland Community College reported that its program is not cost-effective, but is nevertheless justified.

Program Quality: Although small, these programs are effective in meeting industry needs for biomedical technicians. Cooperative agreements with other community colleges, internship courses, highly qualified instructors, motivated advisory committees, updated equipment, and good

relationships with local employers provide further strength to these programs. Program weaknesses were cited as inadequate preparation in mathematics for incoming students and the decreasing number of local employment opportunities.

Richland Community College is creating short-term certificates to make the program more attractive to those who are preparing for a career change or a job upgrade. They also plan to more aggressively market the program to women wishing to pursue a non-traditional career.

Computer Maintenance Technology
Programs that prepare individuals to install, maintain, test and troubleshoot computer hardware, software and peripheral equipment.

Number of Colleges Offering Training	**9**
2001 Follow-up respondents employed or continuing education	**91.3%**
2001 Follow-up respondents working full-time	**82.4%**
2001 Follow-up respondents working in related jobs	**70.6%**

Results of This Year's Program Review: Four colleges reported plans to continue their programs in computer maintenance technology and electronics technology, one college reported plans to significantly modify its program, and two colleges reported plans to discontinue programs in electronics technology.

Program Need: Statewide employment of "computer maintenance technicians" and "computer support specialists" is projected to increase much faster than the statewide average employment of all occupations through 2008, according to the Illinois Department of Employment Security (IDES). IDES also reports that "electronics technicians" are projected to offer a high number of average annual job openings through 2004. The *Illinois Job Outlook in Brief* brochure ranks "computer support specialists" and "maintenance technicians" as a "best bet" occupation, one that offers high employment growth and a high wage for its education level. Locally, in districts where the need for computer support technicians remains steady, student demand for programs in vendor-specific curricula that lead to various certifications has continued to increase. The majority of colleges reporting indicated there is a need for programs in electronics technology, but particularly related to computer maintenance. Several colleges report that while program enrollments have slightly declined, course enrollments have increased over last year. This is typically an indication that students take courses in no particular sequence and/or as they need them for entry into employment or to advance in employment. Plans to discontinue programs were based on declining enrollments and high costs. While completion rates remained average for these programs, placement rates remained high. Students exiting programs early, or "jobbing-out", are finding employment in related fields.

Program Cost: The majority of colleges reporting indicated their programs in this area were cost-effective. They also indicated, however, that high equipment costs and lab facilities requirements contributed to higher unit cost figures. Several colleges reported sharing equipment and facilities with related programs to keep unit costs down.

Program Quality: Common program strengths reported by the colleges include highly knowledgeable and experienced faculty, involvement from industry partners, articulation with secondary school programs, and the number of various vendor-specific certifications offered on campus. Program weaknesses included high cost of equipment and facilities, and the need for continuous review and update of the curriculum to maintain responsiveness to the needs of local employers.

Specific quality improvements reported by the colleges include College of DuPage expanding its program offerings to include the CISCO Certified Network Associate (CCNA)/ Professional (CCNP) programs, and the A+ certification program. William Rainey Harper College reported plans to move its programs into new facilities in the shared "Emerging Technologies Building" during the Summer of 2004.

Electro-mechanical/Instrumentation Technology
Programs that prepare individuals to assist engineers in designing and developing electro-mechanical systems, control and measurement systems and procedures, and equipment.

Number of Colleges Offering Training	**7**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results of This Year's Program Review: Four colleges reported plans to continue their programs in Electro-mechanical/Instrumentation technology implementing only minor improvements. One college indicated a need for a comprehensive curriculum overhaul of three of its programs in order to more effectively address current student and employer needs, and one college will be discontinuing its Electronic Manufacturing Technician degree program.

Program Need: Statewide employment of electro-mechanical/instrumentation is expected to increase by 12.1 percent according to the Illinois Department of Employment Security's *Employment Projections 2008*. All colleges indicated steady enrollments, with emphasis being placed on local economic need and dual enrollment. For example, Black Hawk College and Lake Land College attribute their successful programs to local industry support and need for the programs offered. Several colleges experienced job market needs deterring from program completion. Companies do not necessarily require students to have a certificate or degree, which creates a tendency for students to leave the colleges once they have obtained the skills and knowledge required for employment or advancement before the program completion. In general, all colleges expressed a need for the programs and will continue to work toward producing successful employable students.

Program Cost: All colleges reported their programs were cost-effective. Steady enrollments, shared time with faculty, community and local business support, dual credit, and comparable curricula are all attributes contributing to the cost-effectiveness of these programs at all the colleges.

Program Quality: Common program strengths reported by the colleges included committed, knowledgeable and experienced faculty, faculty networking resources, industry partnerships, dual credit, local economy, broad-based curriculum, considerable focus on non-traditional students, and internships. Program weaknesses included a need for curriculum revisions in certain areas, weak program marketing, and a need for suitable space and ample up-to-date equipment.

Numerous quality improvements were reported by the colleges. For example, Black Hawk College added two full-time faculty members. William Rainey Harper College recently purchased "state of the art" RF (microwave instrumentation and industrial electronics trainer for a "hands-on" laboratory instruction), and Moraine Valley Community College departmental faculty completely revised their required career courses and program options resulting in increased internship sites, improved job placement workshops and high school recruiting.

Health Care Facilities Administration
Programs that prepare health and allied health professionals to manage health care facilities.

Number of Colleges Offering Training	**3**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results of This Year's Program Review: One college reported plans to continue its programs with minor improvements.

Program Need: Demand for "medical/health service managers" is positive statewide. According to IDES, employment in this occupational field is expected to increase at 26.8 percent, over twice the statewide average growth for all occupations. Nearly 40 percent of the annual job openings for "medical/health service managers" is due to people retiring, or leaving the workforce in some other way. The need for management-level employees in long-term care will continue to rise as more allied health care workers are needed to assist the elderly or terminally ill with their health care and daily needs. Locally, College of DuPage reported a continued, but growing, interest in their programs.

Program Cost: College of DuPage reported its program as cost-effective. The unit cost was lower than the average for these programs statewide.

Program Quality: College of DuPage identified strengths of its programs as knowledgeable and dedicated faculty, and flexible course scheduling (such as day, evening, weekend, and home study formats). One weakness identified was the need for online course development for these programs.

While College of DuPage's programs are still new, the curriculum meets high quality standards and the licensure requirements for nursing home administrators as developed by the Illinois Nursing Home Administrators Association.

Health Unit Coordinator/Ward Clerk
Programs that prepare individuals to perform administrative support duties in a health unit of a hospital or other health care facility.

Number of Colleges Offering Training	**2**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results of This Year's Program Review: Two colleges reported plans to continue their programs with minor improvements.

Program Need: Locally, the need for programs in this area varies. Southwestern Illinois College indicates there is a strong need for and interest in its district for this program. Lewis & Clark Community College (LCCC) reported that enrollments have been steadily decreasing over the last five years; however, the College does feel there is still a need for its program at this time. LCCC attributed some of the decline in program interest to local health care facilities cross-training existing nurse assistants or providing on-the-job training to new employees. Furthermore, many local employers seek students with higher-level computer application skills; therefore, students often enroll in medical office assisting courses.

Program Cost: Both colleges reporting indicated their programs were cost-effective. Courses in this subject area can often be taught by part-time faculty and/or shared among faculty from other related programs which helps keep unit costs down.

Program Quality: Common program strengths included quality instruction and current curriculum that meets licensure requirements and local employer needs. Program weaknesses were noted as limited space and the need for a full-time program coordinator.

Medical Office Management
Programs that prepare individuals to manage the administrative and business aspects of a medical practice or other health care facility.

Number of Colleges Offering Training	**2**
2001 Follow-up respondents employed or continuing education	**87.5%**
2001 Follow-up respondents working full-time	**80.0%**
2001 Follow-up respondents working in related jobs	**100%**

Results of This Year's Program Review: One college reported plans to continue its program in medical office management, and one college reported plans to schedule its program for further review during the coming year.

Program Need: Colleges reporting indicated that enrollments had increased over the five-year period, but had seen a slight decrease from last year. Completions continued to remain low, but placements were good locally. Demand for "medical/health service managers", "medical assistants", and "medical secretaries" is positive statewide. According to IDES, employment in management is expected to increase at 26.8 percent, over twice the statewide average growth for all occupations, employment in assisting is expected to increase at 48.8 percent, over four times the statewide average, and employment as medical secretaries is expected to increase at 5.6 percent. In general, colleges indicated there is still interest in and need for their programs in medical office management.

Program Cost: One college indicated its program in medical office management was cost-effective. The other college indicated that this program is an option within a related degree program, and costs are included with the degree program. Both colleges indicated that increased enrollments, larger class sizes and sharing part-time faculty have kept unit costs down.

Program Quality: Common program strengths included knowledgeable and experienced faculty, quality curriculum, and active and supportive advisory committees. Program weaknesses included lack of marketing, and inflexible course scheduling.

Regarding quality improvements, College of Lake County cited its recent Report of Current Status on accreditation to the Commission on Accreditation of Allied Health Education Programs (CAAHEP) which updates the previous accreditation. Elgin Community College is planning several marketing and recruitment activities to target students for its medical office programs.

Health Information & Medical Records Technology
Programs that prepare individuals to classify medical information, prepare patient records, and provide administrative support to medical records administrators.

Number of Colleges Offering Training	**15**
2001 Follow-up respondents employed or continuing education	**95.5%**
2001 Follow-up respondents working full-time	**83.3%**
2001 Follow-up respondents working in related jobs	**97.6%**

Results of This Year's Program Review: Seven colleges plan to continue their health information technology programs with minor improvements.

Program Need: Statewide demand for allied health and related personnel remains steady. Data from the Illinois Department of Employment Securities (IDES) estimates an increase of 37.5 percent in jobs for "medical records technicians" through 2008. On the national level, the Bureau of Labor Statistics cites health information technology as one of the 20 fastest growing occupations in the U.S. Local labor market information provided by the colleges, as well as steady or increasing enrollments, completions and job placements support these predictions. In general, the colleges

reported that enrollments have been steady or increasing and students are being placed in related employment.

Program Cost: Two colleges reported that their programs were operating as part of a college consortium and that the costs were high and the enrollments were lower than expected. Other colleges indicated their programs were cost-effective due to decreases in expenditures or modest increases in enrollments. Use of adjunct faculty was one factor cited for lowering the overall costs of these programs.

Program Quality: Program satisfaction seemed high for health information technology as evidenced by graduate follow-up data and employer satisfaction surveys. The clinical component of the programs was frequently listed as a strength when enough sites were available, as was the availability of multiple certificate options. Whereas several colleges indicated that a strong faculty contributed to the success of the program, an equal number indicated that the reliance on adjunct faculty made scheduling difficult and quality from year-to-year variable.

Moraine Valley Community College and Shawnee Community College both offer health information technology coursework online, and several other colleges reported alternative delivery options as a need for program improvement. Upgrading software, equipment, and the physical classroom environment were often cited as areas continually in need of improvement.

Medical Transcription
Programs that prepare individuals to execute verbatim records, minutes, or proceedings of medical procedures, processes or correspondence.

Number of Colleges Offering Training	**25**
2001 Follow-up respondents employed or continuing education	**90.9%**
2001 Follow-up respondents working full-time	**61.2%**
2001 Follow-up respondents working in related jobs	**78.7%**

Results of This Year's Program Review: Fifteen colleges plan to continue their medical transcriptionist programs with minor improvements; one of those colleges reported two of its programs were scheduled for further review in the coming year and two other programs have been significantly modified. One college discontinued its program as a result of this year's program review.

Program Need: The U.S. Bureau of Labor Statistics reports this field as one of the fastest growing occupations through the year 2010. Reasons for growth in this field include the increase in voice-recorded findings by medical practitioners as well as the increased employment opportunities for most allied health fields due to an aging population. A growing number of medical transcriptionists are hired by transcription services and work as subcontractors in their own home offices. Most colleges reported steady enrollment trends over the past three to five years. Parkland College reported that first-time students enrolling in this program have tripled in the last three years, and Kishwaukee College reported an 80 percent increase during the last five years. Graduate follow-up studies indicate high rates of employment.

Program Cost: Based on instructor pay, enrollments, and cost of supplies, all colleges reported these programs remain cost-effective.

Program Quality: Steady enrollments and access to qualified instructors help keep the quality high for medical transcriptionist programs. Other strengths include utilization of practicing professionals to teach up-to-date practices, the high number of related occupations that these skills can be applied toward, high employment potential, strong retention and completion rates, active and supportive advisory committees, and internship opportunities. Program satisfaction seemed high as evidenced by graduate follow-up data and employer satisfaction surveys.

Those programs that did not include an internship component felt that a work-based learning experience was critical for continued program success. Colleges indicated there are limited career advancement opportunities for medical transcriptionists, perhaps one of the reasons that these programs mostly draw students who are already employed in health care professions as opposed to recent high school graduates. Several colleges felt that they could improve their recruitment efforts for males in this field, and many felt that they needed to provide more flexibility in their scheduling of courses. Black Hawk College, for example, is developing some courses in an online format and is developing a sequenced course plan that accommodates the needs of daytime and evening/weekend students. The lack of full-time faculty and/or a program coordinator was cited as a weakness by some colleges.

Paralegal/Legal Assistant
Programs that prepare individuals to assist attorneys by performing research, drafting, investigatory, record-keeping and related administrative duties.

Number of Colleges Offering Training	**6**
2001 Follow-up respondents employed or continuing education	**97.5%**
2001 Follow-up respondents working full-time	**85.3%**
2001 Follow-up respondents working in related jobs	**77.3%**

Results of This Year's Program Review: Five colleges reported plans to continue their programs in Paralegal and Legal Assistant implementing minor improvements. One college determined after reviewing trends in enrollment and declining opportunities in the local job market that the Legal Assistant program should be discontinued until the job market warrants reactivating the curriculum.

Program Need: Statewide employment of "paralegals" is expected to increase by 43.9 percent according to the Illinois Department of Employment Security's *Employment Projections 2008*. Moreover, the *Illinois Job Outlook in Brief* brochure lists "paralegals and legal assistants" as one of Illinois' Top Occupations by Annual Openings 2001. In terms of national, state, and local trends this occupation is one of the highest ranked non-computer related employment positions. The majority of the colleges reported an increase in enrollments, with emphasis being placed on local economic need and job availability. For example, Illinois Central College and William Rainey Harper College attribute the success of their programs to local support and a basic need for the programs offered. Only one college experienced job market needs deterring from program

enrollment. The majority of colleges expressed a need for the program and program completers in their area and will continue to work toward producing successful employable students.

Program Cost: The majority of the colleges reported their programs were cost-effective. Increased enrollments, adjunct faculty, community and local business support, and comparable curriculums are all attributes contributing to the cost-effectiveness of these programs at the colleges.

Program Quality: All continuing paralegal programs have been approved by the American Bar Association. Common program strengths reported by the colleges included committed, knowledgeable and experienced faculty, active advisory committees, industry and local partnerships, good articulation, strong support of the local bar association and local economy, excellent technology and learning resource support, and the availability of internships. Program weaknesses include the ratio of full-time to part-time faculty, need for additional space, and the need to strengthen legal office technology curriculum and incorporate computer-assisted legal research tools and legal specific software.

Regarding quality improvements, Illinois Central College is developing a program in distance learning format. Southwestern Illinois College is in the process of developing workshops to train part-time faculty in the use of new instructional technologies, updating the professional requirements for two paralegal professional courses and considering expansion of full-time faculty and staff.

Corrections/Correctional Administration
Programs that prepare individuals for the development, administration and practice of corrections, including incarceration, supervision, and rehabilitation of legal offenders.

Number of Colleges Offering Training	**12**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results of This Year's Program Review: Four colleges reported plans to continue their programs in corrections, and two colleges reported plans to discontinue their programs.

Program Need: Statewide employment of "correctional officers" is projected to increase over twice as fast as the statewide average employment of all occupations through 2008, according to the Illinois Department of Employment Security (IDES). IDES also reports that "correctional officers" are projected to offer a high number of average annual job openings through 2004. Despite an anticipated growth in employment statewide, locally the colleges reported steady or declining enrollments in corrections programs. Colleges reporting indicated that budget cuts at the state level have affected pursuit of entry-level employment in corrections by potential students locally. Many course enrollees are currently working in corrections.

A recent collaboration between ICCB and the Illinois Department of Corrections (IDOC) led to the approval of a statewide model curriculum for an A.A.S. in Corrections program specifically designed for IDOC employees. The program is intended to increase the educational and advancement

opportunities for existing corrections employees. The degree program has two options: Correctional Officer/Youth Supervisor and Parole Officer. The curriculum builds on the coursework students earn through IDOC training as Correctional Officers/Youth Supervisors or Parole Officers, adds general education requirements and required occupational/technical education coursework. Four colleges have indicated plans to begin offering these programs this Fall. Colleges statewide may see an increase in program interest and enrollments as a result of this new collaboration.

Program Cost: Most colleges reporting indicated that programs in corrections were cost-effective. These programs typically share courses in other areas such as criminal justice, so costs for instructors, equipment and facilities are shared. Many programs utilize part-time instructors for certificate programs. Declining enrollments were cited as the major factor in higher unit costs for these programs.

Program Quality: Program strengths reported by the colleges include knowledgeable and experienced faculty, supportive and active program advisory committees, interdisciplinary curriculum (i.e., sharing courses with criminal justice, human services, security training, etc.), and sharing faculty and facilities with related programs. A few common weaknesses included limited course offerings and lack of interest in program completion. Several colleges indicated that the approval of the statewide model curriculum in corrections for IDOC employees would increase the interest in related program offerings on their campuses.

Specific examples of quality improvements include Joliet Junior College's plans to extend course offerings onto its satellite campuses, and Elgin Community College's movement of criminal justice programs into the newly remodeled Industrial Training Center during Fall 2002. Four community colleges, Danville Area, John A. Logan, Rend Lake, and Southeastern Illinois, plan to begin offering the statewide model A.A.S. in Corrections curriculum developed for IDOC employees this fall. These programs will expand the educational opportunities for district students and current employees of IDOC.

Law Enforcement/Police Science
Programs that prepare individuals for performing patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection, crime prevention activities, weapon and equipment operation and maintenance, and report preparation.

Number of Colleges Offering Training	**44**
2001 Follow-up respondents employed or continuing education	**96.7%**
2001 Follow-up respondents working full-time	**88.4%**
2001 Follow-up respondents working in related jobs	**67.3%**

Results of This Year's Program Review: Thirty-four colleges reported plans to continue their programs in law enforcement, two colleges reported plans to significantly modify their programs, and three colleges reported scheduling their programs for further review during the coming year.

Program Need: Statewide employment of police officers and detectives is projected to increase faster than the statewide average employment of all occupations through 2008, according to the Illinois Department of Employment Security (IDES). Both statewide and at the national level, post September 11, 2001 demand for law enforcement personnel has had a positive affect on training programs in this area. Locally, many law enforcement agencies are instituting new educational requirements for entry-level officers, the most common being a two-year degree, and requiring continued professional development of current officers. The majority of colleges reported that need exists for law enforcement programs within their communities, and enrollments have increased or remained steady over the last few years. Even in districts where program enrollments declined, colleges reported a strong need continues to exist for law enforcement programs.

One area of concern reported by many colleges relates to parallel offerings of the A.A.S. in Law Enforcement and the A.A. with a Law Enforcement option. Many colleges indicated that an increasing number of students are enrolling in the A.A.S. program, then transferring into the A.A. program before completing. These students subsequently take fewer major courses and more transfer courses, which adversely affects enrollment and credit hour figures for the law enforcement area.

Overall, colleges reported that while program completions declined, placements remained steady. Demand for entry-level officers at the local level remains steady. Many colleges indicated strong support by local law enforcement agencies in the form of advisory committee input, recruiting, serving as faculty (both full- and part-time), and providing sites for internships and work-based learning experiences, and in sharing resources such as facilities and equipment.

Program Cost: The large majority of colleges reporting indicated that programs in law enforcement were cost-effective. Low unit costs for these programs were often attributed to high enrollments, utilization of part-time faculty, and the relatively low cost of instruction because they do not typically require lab facilities or expensive equipment. Colleges with programs that are not particularly cost-effective indicated that declining enrollments were a major factor.

Program Quality: Common program strengths reported by the colleges included knowledgeable and experienced full- and part-time faculty (many colleges reported using retired or active duty police officers and attorneys as instructors), active and supportive program advisory committees, excellent relationships with local law enforcement agencies, up-to-date curriculum, flexibility in course scheduling (such as shortened formats or online offerings), articulation between secondary school programs and the college's A.A.S., and transferability into programs at four-year institutions. Identified weaknesses include the need for more full-time faculty or at least a full-time program

coordinator, the desire for advisory committees to do more to market the programs, and the need to make new equipment purchases and integrate technology into the curricula. Many colleges expressed plans to develop or investigate the development of online offerings.

Colleges reported numerous quality improvements in law enforcement programs. For example, Lewis & Clark Community College plans to build a new computer lab for its criminal justice program; Waubonsee Community College established a dual credit partnership with a local high school and police department, and was recognized by the Illinois State Board of Education and the National Council of Instructional Administrators with an award for this achievement; Southwestern Illinois College plans to build an indoor firing range/training ground on its main campus; Parkland College incorporated English writing instruction into its criminal justice courses in an effort to improve the writing skills of students; South Suburban College plans to develop a basic certificate program in partnership with the Cook County Sheriff's Office; Rock Valley College is exploring a partnership with local public safety offices for a combined Public Safety Institute which would provide instructional programming needed by various state and local agencies; and Rend Lake College plans to expand its criminal justice program offerings to include shorter-term certificate programs in the areas of police science, corrections and private protection.

Security & Loss Prevention Services
Programs that prepare individuals to perform routine inspection, patrol and crime prevention services for private clients.

Number of Colleges Offering Training	**11**
2001 Follow-up respondents employed or continuing education	**NA**
2001 Follow-up respondents working full-time	**NA**
2001 Follow-up respondents working in related jobs	**NA**

Results from This Year's Program Review: Five colleges reported plans to continue their programs in security and loss prevention, one college reported plans to significantly modify its program, one college reported plans to discontinue its program, and one college reported scheduling its program for further review during the coming year.

Program Need: Statewide employment of 'private detectives/investigators" and "security guards" is projected to increase twice as fast as the statewide average employment of all occupations through 2008, according to the Illinois Department of Employment Security (IDES). However, statewide enrollments in security and loss prevention programs have decreased significantly over the last three years. Despite this, the majority of districts reported that need for this training remains steady in most areas and has increased in metropolitan areas. Post September 11, 2001 growth in the number of security personnel needed has had a positive effect on course enrollments for several colleges. Many students take courses in security, then "job-out" of the program once they attain employment. Colleges may experience increased demand for security-related programs, particularly related to airport security and security in public places.

Program Cost: The majority of colleges reporting indicated that programs in security and loss prevention were cost-effective. These programs typically share courses in other areas such as

criminal justice, so costs for instructors, equipment and facilities are shared. Many programs utilize part-time instructors for certificate programs.

Program Quality: Common program strengths in security and loss prevention programs include quality curriculum, knowledgeable and experienced full- and part-time faculty, shared resources with related programs, and strong support from local employers. A few common weaknesses included lack of marketing and recruitment for the program and lack of interest in program completion.

Regarding quality improvements, Moraine Valley Community College plans to hire a full-time program coordinator who can evaluate and update the curriculum, enlist more involvement from local employers and develop a marketing and recruitment plan. Illinois Central College recently entered a partnership with Caterpillar, Inc. to offer credit courses to their security officers.

Electrical & Power Transmission Installers
Programs that prepare individuals to install, operate, maintain, and repair residential, commercial and industrial electrical systems and power lines that transmit electricity.

Number of Colleges Offering Training	**16**
2001 Follow-up respondents employed or continuing education	**93.9%**
2001 Follow-up respondents working full-time	**100%**
2001 Follow-up respondents working in related jobs	**95.7%**

Results of This Year's Program Review: The information above includes all programs in this broad program classification, specifically Electrician as well as Electrical and Power Transmission Installers. The majority of the programs are Electrician. The fiscal year 2002 program review schedule includes only Electrical and Power Transmission Installers, which is why it appears that so few colleges reported. Three colleges reported plans to continue their programs in electrical and power transmission technology implementing minor improvements. One college determined after reviewing trends in enrollment and declining opportunities in the local job market that the Electrical Wiring program should be discontinued.

Program Need: Statewide employment of "electricians" is expected to increase by 13.9 percent according to the Illinois Department of Employment Security's *Employment Projections 2008*. Moreover, the *Illinois Job Outlook in Brief* brochure, lists "electrician" as one of Illinois' Top Occupations and a "Best Bet" occupation which indicates a combination of high growth rate, a large number of annual openings and a high wage for its education level. The majority of the colleges reported an increase in enrollments, with emphasis being placed on local economic need and job availability. Only one college experienced job market needs deterring from program enrollment. The majority of colleges expressed a need for the program and program completers in their area and will continue to work toward producing successful employable students.

Program Cost: The majority of the colleges reported their programs were cost effective. Increased enrollments, International Brotherhood of Electrical Workers (IBEW) trainers, community and local business support, and comparable curricula are all attributes contributing to the cost effectiveness of these programs.

Program Quality: Common program strengths reported by the colleges included committed, knowledgeable and experienced (journey-level electricians) faculty, apprenticeship experience, active advisory committees, industry and local partnerships, program content related directly to Federal, State, Local and Union regulations, full-time employment upon completion, excellent technology and learning resource support, and professional development. Program weaknesses included reduction in funding, lack of nontraditional students, and lack of competency-based outcomes.

Regarding quality improvements reported by the colleges, Triton College's advisory committee continuously reviews curriculum to reflect current and future trends in the industry, and Richland Community College is in the process of introducing SCANS to the program and assisting with union recruitment of nontraditional students.

Electrical, Electronics & Communications Systems Equipment Installers & Repairers
Programs that prepare individuals to operate, maintain and repair electrical, electronic or communications systems equipment. May also include programs in repair of cable television, mobile or stationary communication devices.

Number of Colleges Offering Training	**11**
2001 Follow-up respondents employed or continuing education	**97.2%**
2001 Follow-up respondents working full-time	**91.7%**
2001 Follow-up respondents working in related jobs	**80.3%**

Results of This Year's Program Review: Twelve college programs will be continued with minor improvements, four will be significantly modified, one will be discontinued, and five have been scheduled for further review in the coming year.

Program Need: According to *Employment Projections 2008* from the Illinois Department of Employment Security, statewide employment forecasts for careers related to training in electrical, electronics, and communications systems technology are positive. Job growth in "electrical and electronic equipment mechanic" careers is expected to increase by 10 percent between 1998 and 2008, providing an estimated 2,239 annual job openings. Positions in "communications equipment mechanic"occupations are expected to increase by 6.4 percent during this period, creating 351 jobs. While this outlook is positive, it falls slightly below the overall statewide growth forecast of 12.7 percent. The highest growing career area for the period of 1998-2008 is expected to be "telephone/cable TV installer/repairer", and the slowest growing career areas for that period are "radio mechanics", which is projected to decrease by 23.4 percent or 36 positions and "electronics repairers-commercial/industrial equipment", which is projected to decrease by 12.7 percent or 94 positions. According to the college reports, programs in many parts of the state are experiencing growth, due to an increased demand for workers who possess technology-related skills. In fact, students often choose to enter the workforce prior to completing the curriculum, which negatively impacts program completion rates.

Program Cost: Most colleges responding indicated that their programs in electrical, electronics and communications systems technology have high unit costs when compared to other similar programs.

Declining enrollments and use of full-time instructors were often cited as reasons for this. However, many reports indicate that program enrollments are beginning to increase and that this should, over time, work to decrease unit costs. Many innovative methods have been employed at the program level in an attempt to keep potential large unit costs down. These include having students pay for their own hand tools and other lab equipment, sharing courses with other related programs and revising curriculum.

Program Quality: Common program strengths for electrical, electronics and communications systems technology as reported by the colleges include well-qualified full-time faculty members, adjunct faculty who bring "real-world" experience to the classroom, up-to-date equipment and dual credit opportunities for secondary students. Weaknesses include the continual need for equipment upgrades in order to keep up-to-date with industry standards, weak program marketing and lack of recognized industry certifications.

Specific quality improvements include Lincoln Land Community College's development of an electrical lineman distribution degree program that builds on its existing certificate in collaboration with the Association of Electrical Cooperatives.

Computer Installers & Repairers
Programs that prepare individuals to assemble, install, operate, maintain and repair computers and related equipment including computer hard drives, monitors, and memory.

Number of Colleges Offering Training	**24**
2001 Follow-up respondents employed or continuing education	**89.7%**
2001 Follow-up respondents working full-time	**77.1%**
2001 Follow-up respondents working in related jobs	**60.0%**

Results of This Year's Program Review: Thirteen colleges reported plans to continue their programs in computer installation and repair, two colleges reported plans to significantly modify their programs, and two colleges reported plans to discontinue programs.

Program Need: Statewide employment of computer maintenance technicians is projected to increase much faster than the statewide average employment of all occupations through 2008, according to the Illinois Department of Employment Security (IDES). The *Illinois Job Outlook in Brief* brochure ranks computer support specialists and maintenance technicians as a "best bet" occupation, one that offers high employment growth and a high wage for its education level. Locally, in districts where the need for computer maintenance technicians remains steady, student demand for programs in vendor-specific curricula that lead to various certifications has continued to increase. All of the colleges reported demand for their programs. Student enrollments remained steady or increased for most districts. Only a few districts reported declines in enrollment. Many colleges reported adding vendor-specific short-term certificate programs to satisfy the immediate training needs of their community. While completion rates remained average for these programs, placement rates remained high. Students exiting programs early, or "jobbing-out", generally find employment in related fields.

Program Cost: The majority of colleges reporting indicated their programs in this area were cost-effective. They also indicated, however, that high equipment costs and lab facilities requirements contributed to higher unit cost figures. Updating equipment and professional development for instructors adds to the higher unit costs for this program area. Several colleges reported sharing equipment and facilities with related programs to keep unit costs down.

Program Quality: Common program strengths reported by the colleges include highly knowledgeable and experienced full-time faculty, part-time faculty working in current technology fields, involvement from industry partners, articulation with secondary school programs, and the number of various vendor-specific certifications offered on campus. Program weaknesses included high cost of equipment and facilities, the need for continuous review and update of the curriculum to maintain responsiveness to the needs of local employers, and the need for regular professional development for instructors to maintain currency within the industry.

Colleges identified numerous quality improvements. For example, Olive-Harvey College is investigating the creation of an Information Technology Department/Technical Center that would house the program areas of computer electronics, computer information systems, networking and graphic design/desktop publishing, which would allow for more resource sharing and improve coordination among faculty and programming. Lincoln Trail College has plans to offer a "Study - Lab and Career Exploration" course within its CISCO program that will allow the instructor to spend extra time with students on individual problems outside of the strict CISCO instruction method. The College expects this to greatly improve its course and program retention rates for this area.

Industrial Electronics Installers & Repairers
Programs that prepare individuals to assemble, install, operate, maintain and repair electrical/electronic equipment used in industrial and manufacturing settings.

Number of Colleges Offering Training	**19**
2001 Follow-up respondents employed or continuing education	**94.7%**
2001 Follow-up respondents working full-time	**98.1%**
2001 Follow-up respondents working in related jobs	**90.2%**

Results of This Year's Program Review: Fifteen program review reports were received this year in industrial electronics. As a result, eight colleges will be continuing programs with minor improvements, three colleges will be significantly modifying their programs, three colleges will discontinue their programs, and one college reported scheduling its program for further review in the coming year.

Program Need: According to *Employment Projections 2008* from the Illinois Department of Employment Security, statewide employment forecasts for careers related to training in "electronics technology" are positive. Job growth in "electrical & electronic equipment mechanic" careers is expected to increase by 10 percent between 1998 and 2008, providing an estimated 2,239 annual job openings. While this outlook is positive, it falls slightly below the overall statewide growth forecast of 12.7 percent. The highest specific growth for the period of 1998-2008 is estimated in "telephone/cable TV installer/repairer" occupations, with 24.4 percent growth or 1,409 job openings

forecasted. The lowest expectation for that period is in "electronics repairers-commercial/industrial equipment", which is projected to decrease by 12.7 percent or 94 positions. Locally, colleges reported stable or slightly declining enrollments, and good job placements for those completing programs.

Program Cost: In general, colleges indicate that compared to unit cost data for peer groups and other similar programs within the college and across the state, programs in industrial electronics are typically cost-effective. However, many of the programs being discontinued cited high unit cost as a factor in that decision. Facility costs were repeatedly noted as a principal reason for higher expenses. Many innovative methods have been employed at the program level in an attempt to keep potential large unit costs down. These include reductions in section offerings, use of a business account to allow programs to generate income through student work and sharing costs with related college programs.

Program Quality: Common program strengths for industrial electronics programs as reported by the colleges include well-qualified full-time faculty members, adjunct faculty who bring "real-world" experience to the classroom, up-to-date equipment, strong alignment with secondary and university programs and strong connections with local businesses through advisory boards. Weaknesses include poor program completion rates due to high industry demand for workers, continual need for equipment upgrades in order to keep up-to-date with industry standards and lack of recognized industry certifications.

Regarding quality improvements, College of Lake County recently restructured introductory courses from a sixteen week format to an eight week format, which has been highly beneficial to students' completion rates. Lake County has also been successful in articulating three of these four courses with area high schools. Parkland College also recently restructured its Electronic Control Systems program to allow previous certificate holders to use their credits toward completion of a new certificate.

Major Appliance Installers & Repairers
Programs that prepare individuals to repair, install and service major gas, electric and microwave consumer appliances such as stoves, refrigerators, washers, dryers, heaters, and dishwashers.

Number of Colleges Offering Training	**3**
2001 Follow-up respondents employed or continuing education	**100%**
2001 Follow-up respondents working full-time	**66.7%**
2001 Follow-up respondents working in related jobs	**66.7%**

Results of This Year's Program Review: One college reported plans to continue its program with minor improvements, and one college reported plans to discontinue its programs in major appliance repair.

Program Need: Demand for appliance technicians is positive statewide. According to IDES, employment in this occupational field is expected to increase at 7.7 percent, slightly lower than the statewide average growth for all occupations. Locally demand for appliance technicians varies. Harry S Truman College, located in a large metropolitan area, indicated strong need for its program as evidenced by high enrollments and job placements. In contrast, Southwestern Illinois College, located in a suburban area, indicated very little demand for its programs as illustrated through low enrollments and lack of student or community interest.

Program Cost: Harry S Truman College reported its program as cost-effective. The unit cost was lower than the average for these programs statewide. Product and equipment donations from local businesses help keep unit costs down.

Program Quality: Harry S Truman College identified strengths of its program as meeting industry requirements, active and supportive advisory committee, knowledgeable and dedicated faculty, and good relationships with local businesses. A program weakness was identified as inflexible scheduling, which the College has addressed through reformatting the curriculum. Southwestern Illinois College intends to withdraw its programs and offer courses only on an as-needed basis.

Summary of Analyses of
Career & Technical Education Program Reviews and Recommendations

Career and technical education program review summaries for fiscal year 2002 provided strong evidence that the colleges are using their human capital wisely. Colleges consistently identified strengths of their programs as knowledgeable faculty who have good relationships with related business, industry, and professions, which contributes to the development of relevant curriculum with quality work-based learning experiences. Lack of up-to-date equipment and/or technology is a continuing challenge for many of the programs reviewed. In addition, for programs that rely on rapidly changing technology, the challenge is to keep the curriculum relevant to the needs of the workplace, and to recognize when a particular technology or skill set is no longer preparing students for the current workplace. Computer Operator programs provide an example of an occupation that is being phased out and/or subsumed into other broader computer-related occupations. Some colleges have responded by eliminating their programs in this area and providing other more relevant computer-related programs, while others have opted to substantially revise the existing programs to make them more relevant to the current needs of business and industry. Either way, it is imperative that colleges continually monitor the needs of the workplace and be prepared to provide relevant programs.

In general, the career and technical education program areas that were reviewed during fiscal year 2002 remain strong as evidenced by information about need, cost, and quality. However, low numbers of completers continues to be a concern in many career and technical education areas. Program completion is used as a performance indicator in accountability for Perkins funding and for the Workforce Investment Act. In addition, it is a commonly-accepted measure for program effectiveness. Colleges are addressing low program completions in a number of ways, including restructured curricula, development of short skill-specific certificate programs, more intensive student advising, and the use of enhanced data systems. At the state level, ICCB has developed and implemented a streamlined approval process for short-term certificates to support colleges in their efforts to respond to this need. In addition, data quality issues that may adversely affect the reporting of completions have been the focus of regional and statewide career and technical education workshops and conferences sponsored by ICCB. Discussions also need to continue regarding additional measures that capture successful student outcomes. For example, for many career and technical education programs, high demand from business and industry creates employment for students who may have completed only part of a program. In those cases, the students are successfully employed in their field of study or a closely related one, but for accountability purposes, they are not counted as a success. Student success measures should be a continuing area of consideration as ICCB staff examine the program review process and as discussions continue at the federal level about reauthorization of legislation that affects funding for career and technical education (Perkins), adult education and family literacy, and workforce development (WIA).

Summary and Conclusions

This report highlights and summarizes accountability activities and initiatives described by Illinois' 48 community colleges in their Accountability/Program Review Reports for Fiscal Year 2002. The reports submitted by the colleges provide evidence of the ongoing review processes that are in place to ensure that high levels of quality and productivity are achieved for programs and services that best support each college's mission. Through program review, the colleges examine targeted program areas and services to assess their ability to meet their intended purpose in a cost-effective, high-quality manner. Each year colleges also address selected focus areas of particular relevance to state-level issues and concerns.

The two primary sections of this report include **Accountability Special Focus Areas and Analyses of the Results of Fiscal Year 2002 College Program Reviews.** Topics considered in the *Accountability Special Focus* section this year include Teacher Preparation and Professional Development, Program Assessment, and Performance-Based Incentives - District-Based Goal. Programs in five academic disciplines; 26 occupational program areas; and Adult Education and Family Literacy, English as a Second Language, and Developmental Education are examined in the *Results of Fiscal Year 2002 College Program Reviews.* Highlights of the findings of the report follow:

Accountability Special Focus Areas

Teacher Preparation and Professional Development

- Issues related to the supply and quality of teachers in Illinois, and throughout the nation, have made it clear that all education partners will be needed to find solutions. Community colleges have historically played a role in providing some or all of the first two years of college preparation for intending teachers. Approximately 44 percent of the graduates of public university teacher education programs in Illinois annually earn the equivalent of a year of more of their coursework from a community college, yet until recently, their role as a partner in teacher preparation was largely unrecognized. As forces converge to clarify the role of community colleges in teacher preparation, including professional development, colleges were asked to provide information regarding (1) local teacher preparation initiatives and partnerships, and (2) involvement in the provision of professional development opportunities for teachers.

- Nearly every college described initiatives and partnerships with universities and/or other community colleges relating to teacher preparation, including specific articulation agreements with K-12 and university partners, aligning courses and curricula with state and national standards, developing agreements for baccalaureate-completion programs and/or alternative certification opportunities on community college campuses, and working in partnership with K-12 school districts and universities to recruit and prepare teachers for hard-to-serve areas.

- Many colleges are focusing on the development of paraprofessional training programs for teacher assistants/aides in order to meet the requirements recently established in the No Child Left Behind federal legislation.

- Colleges consistently cited the different requirements and prerequisites among teacher education programs at senior institutions as a factor that limits the colleges' role in teacher preparation and presents barriers for student transfer. It is hoped that the development of an Associate in Arts in Teaching degree, which is under discussion by a P-16 Community College Partnership Task Force, will be a positive step in addressing these issues.

- The breadth and depth of professional development offerings at community colleges is notable. Credit and noncredit courses, workshops, seminars, conferences and other activities providing Continuing Education Units (CEUs) or Continuing Professional Development Units (CPDUs) for teacher recertification are common and widely available. Professional development activities for community college and university faculty also exist. Many of the activities described by the colleges are tailored to meet the needs expressed by school district personnel and are offered both on- and off-campus and through online delivery methods.

- Professional development activities, particularly in the area of technology, are drawing high numbers of teachers. In fiscal year 2002, Oakton Community College awarded 335 K-12 educators a total of 2,530 CPDUs. Lake Land College offered 131 professional development workshops with a total of 540 participants, and Waubonsee Community College's noncredit offerings served 646 teachers through 78 courses. Lewis & Clark Community College served 1,038 teachers who were enrolled in 79 separate sections of noncredit classes; another 52 public school employees enrolled in credit-generating, district-sponsored teacher assistant training classes to improve their skills as classroom aides.

Program Assessment

- The need to be increasingly accountable for student achievement and preparation has led educators to assess their efforts from a student learning (outcomes) perspective rather than the traditional teaching (inputs) perspective. In order to determine the current status of and future plans for program assessment, colleges were asked to provide information on programs that already have program assessments in place and plans to develop program assessments for those programs that do not currently assess students' learning as a result of completing the program.

- All of the colleges have developed institutional assessment plans. Common organizational approaches to the assessment of student learning include identification of a central point of responsibility for assessment within the institution's administrative structure, and use of one or more faculty/staff committees to move assessment plans forward.

- To date, the majority of assessment efforts have focused on course outcomes more often than on program outcomes. While no college reported having comprehensive assessments in place for all programs, a few are nearing that goal.

- *Colleges are most likely to have comprehensive* program assessments in place for technical programs. Several colleges are developing and/or implementing assessments for general education programs. Only a few colleges reported having comprehensive assessments in place for transfer programs, and many acknowledged that developing program-level assessment for transfer programs is challenging.

- Many career and technical education programs prepare students for regulated or licensed occupations or occupations where voluntary industry-defined certifications are available. These external mandatory and voluntary licenses and certifications provide a meaningful form of program-level assessment for programs that require licensure (i.e., nursing, allied health, truck driving, real estate), and for programs which offer industry/professional certification (i.e., information technology, protective services, automotive repair, hospitality, and banking). Other common forms of program assessment for career and technical education programs include capstone experiences such as internships, clinicals, or practica.

- Most colleges indicated that learning outcomes have been identified for general education for transfer and/or career and technical education programs. The institutions are at varying stages of developing and implementing assessments to determine student achievement of the identified outcomes. The most common assessment methods include common exit examinations for core or key general education courses, portfolios, and capstone courses.

- Although few colleges have program-level assessment in place for transfer programs, many reported that once assessment of the general education program is fully implemented, they will expand the approach across additional transfer courses to achieve program-level assessment for transfer degree programs. The most commonly used assessment methods mirror those used for general education, namely common exit examinations, portfolios, and capstone courses.

- Community colleges use a combination of multiple qualitative and quantitative measures to assess programs and student learning, including completion rates, persistence, GPA, test scores, portfolios, capstone courses, internships/clinicals/practica, graduate and employer surveys, and UI wage data. While the data are valuable to document student learning outcomes, their aggregate value is in their use for program improvement in order to support high student achievement. The college reports provided numerous examples of how the results of program-level assessment are used for the improvement of curricula and student learning.

- The college reports provided strong evidence that they are fostering buy-in from faculty for assessment in a number of creative ways and are providing an array of professional development opportunities to support the development of meaningful assessments. Examples were also provided to show that colleges advance assessment initiatives systemically through institutional procedures and requirements, such as program and course approval and promotion decisions.

- Program assessment will be a major consideration during the examination of the ICCB program review process and will be a topic of discussion with the college chief academic officers and career deans throughout fiscal year 2003.

Performance-Based Incentives - District-Based Goal

- In May 1998, the Illinois Community College Board approved a Performance-Based Incentive System (PBIS) with six statewide goals and a district-based goal. PBIS was designed to focus on teaching and learning, provide additional funds "at the margin," recognize high performance and improvement, have a long-term perspective with an extended pilot phase, and consist of meaningful goals and measures.

- For the PBIS District-Based Component, colleges chose among three focus areas: Workforce Preparation, Technology, or Responsiveness to Local Need. During the initial year, colleges developed plans that included objectives and benchmarks. In the ensuing years, colleges have submitted annual reports of progress in meeting their goals. Fiscal year 2002 marked the final year of the pilot phase of the PBIS District-Based Goals. The final reports submitted by the colleges will be reviewed by peer panels and colleges will receive feedback on the panels' assessments.

- Further study will be given to the Performance-Based Incentive System to assess its impact and determine future directions beyond the initial pilot phase.

Instructional Program Review

- Annual reporting of the results of program reviews is a major accountability effort by the colleges that began in 1983. The review is based on three criteria: program need, program cost, and program quality. Programs are reviewed at least once every five years.

- During fiscal year 2002, colleges reviewed a total of 84 academic disciplines, 26 adult and developmental education and English as a Second Language programs, and 681 career and technical education programs.

- Findings of the reviews of academic disciplines indicated adequate need and cost-effectiveness. Quality enhancements included assessment efforts, piloting online courses, continuing to internationalize general education, promoting students' analytical and writing skills, remediation, retention, and expanding applications of technology to increase student access to courses to communicate with students and colleagues, and to facilitate student learning.

- Reviews of Adult Education and Family Literacy, English as a Second Language, and Developmental Education programs indicated that strong need for the programs continues. Colleges indicated that the programs were cost-effective, mostly due to high enrollments. A few colleges indicated that costs increased during fiscal year 2002 due to hiring of additional faculty and purchase of new instructional materials. Common program strengths were identified as knowledgeable and experienced instructors, staff development opportunities, flexible schedule options, and the availability of instructional support services to students. Common program weaknesses were identified as the need for full-time faculty, the need for increased recruitment efforts, inadequate facilities, and high turnover among part-time staff.

- As a result of reviews of career and techical education programs, 536 programs were continued with minor improvements, 38 programs were significantly modified, 59 programs were identified for elimination, and 48 programs were scheduled for further review during the coming year.

- The most commonly identified strengths for career and technical education programs were knowledgeable and experienced faculty, active advisory committees, quality internship and work-based learning opportunities, and positive relationships with employers and the community. The most common weaknesses were low enrollments, low completions, and the need for continual updating of curricula and/or equipment.

Recommendations: As a result of the findings in the report *Accountability and Productivity in Illinois Community Colleges Fiscal Year 2002*, the following is recommended:

In order to ensure that the program review process continues to be a major accountability tool for Illinois community colleges, during fiscal year 2003 ICCB staff should convene a work group to examine the process and make recommendations for enhancements to provide increased accountability and to reduce duplicative reporting for accountability purposes. Particular attention should be given to inclusion of key data required for multiple accountability initiatives, the identification of additional measures of student success, inclusion of results of program-level assessments that provide evidence of student learning, and the creation of a reporting loop that connects the results of previous and current program reviews to provide evidence of continuous program improvement.

Conclusion. The report of *Accountability and Productivity in Illinois Community Colleges Fiscal Year 2002* provides evidence that Illinois' comprehensive community colleges play a vital role in the state's educational and workforce preparation. They provide access and opportunity to nearly one million diverse students annually, including those seeking assistance deciding on a new career or upgrading skills for their current occupation, persons interested in transferring to another college or university, and students who need to sharpen their basic skills. In addition, they are a valuable resource to businesses and industries and a partner in economic development in the districts they serve. The report also illustrates that the colleges are committed to continuous improvement of their programs and services and that they have in place strategic planning processes to address future needs. The content of the reports affirms that Illinois community colleges continue to play an essential role in preparing the well-educated, high-skilled citizenry the state must have to support a strong economy and a desirable living environment.

Appendix A

COMMUNITY COLLEGE PROGRAM REVIEW SUMMARY TABLES

Illinois Community College Board Table A-1 LIST OF PROGRAMS REVIEWED BY COMMUNITY COLLEGES DURING FISCAL YEAR 2002			
College	# of Occupational Curricula Reviewed	# of Academic Disciplines Reviewed	# of Dev/Adult Education Programs Reviewed
Black Hawk	18	5	1
Chicago			
Daley	13	1	0
Kennedy-King	10	0	0
Malcolm X	3	2	0
Olive-Harvey	11	1	1
Truman	10	1	0
Washington	8	2	0
Wright	3	5	0
Danville	8	1	2
DuPage	38	3	0
Elgin	17	0	0
Harper	33	3	1
Heartland	13	2	1
Highland	1	1	0
IL Central	32	3	0
Illinois Eastern			
Frontier	2	1	0
Lincoln Trail	7	0	0
Olney	3	0	0
Wabash	3	0	0
IL Valley	6	3	0
Joliet	13	0	0
Kankakee	12	0	0
Kaskaskia	8	3	3
Kishwaukee	12	0	3
Lake County	25	3	0

Illinois Community College Board
Table A-1
LIST OF PROGRAMS REVIEWED BY COMMUNITY COLLEGES
DURING FISCAL YEAR 2002

College	# of Occupational Curricula Reviewed	# of Academic Disciplines Reviewed	# of Dev/Adult Education Programs Reviewed
Lake Land	12	1	0
Lewis & Clark	18	2	1
Lincoln Land	27	4	1
Logan	9	0	0
McHenry	12	5	1
Moraine Valley	14	1	0
Morton	8	0	0
Oakton	19	1	0
Parkland	31	1	0
Prairie State	12	3	3
Rend Lake	8	4	0
Richland	8	1	0
Rock Valley	41	1	1
Sandburg	5	1	1
Sauk Valley	8	3	0
Shawnee	13	1	1
South Suburban	17	2	0
Southeastern	9	3	1
Southwestern	39	2	0
Spoon River	9	4	1
Triton	21	1	1
Waubonsee	21	2	1
Wood	11	1	1
TOTALS	681	84	26

Illinois Community College Board
Table A-2
SUMMARY OF FISCAL YEAR 2002 REVIEWS OF
OCCUPATIONAL PROGRAMS BY COLLEGE

College	Number of Programs Reviewed	(1) Number Continued with Minor Improvements	(2) Number Significantly Modified	(3) Number Identified for Elimination	(4) Number Identified for Further Review
Black Hawk	18	10	1	3	4
Chicago					
Daley	13	13	0	0	0
Kennedy-King	10	10	0	0	0
Malcolm X	3	0	0	0	3
Olive-Harvey	11	7	3	0	1
Truman	10	7	2	0	1
Washington	8	6	0	1	1
Wright	3	3	0	0	0
Danville	8	8	0	0	0
DuPage	38	33	4	0	1
Elgin	17	12	0	2	3
Harper	33	17	3	1	12
Heartland	13	13	0	0	0
Highland	1	1	0	0	0
Illinois Central	32	26	0	4	2
Illinois Eastern					
Frontier	2	2	0	0	0
Lincoln Trail	7	5	0	2	0
Olney	3	3	0	0	0
Wabash Valley	3	3	0	0	0
Illinois Valley	6	5	0	0	1
Joliet	13	13	0	0	0
Kankakee	12	12	0	0	0
Kaskaskia	8	8	0	0	0
Kishwaukee	12	12	0	0	0
Lake County	25	24	0	1	0
Lake Land	12	10	0	0	2
Lewis & Clark	18	12	0	6	0

Illinois Community College Board
Table A-2
SUMMARY OF FISCAL YEAR 2002 REVIEWS OF
OCCUPATIONAL PROGRAMS BY COLLEGE

College	Number of Programs Reviewed	(1) Number Continued with Minor Improvements	(2) Number Significantly Modified	(3) Number Identified for Elimination	(4) Number Identified for Further Review
Lincoln Land	27	22	0	1	4
Logan	9	9	0	0	0
McHenry	12	12	0	0	0
Moraine Valley	14	11	1	0	2
Morton	8	8	0	0	0
Oakton	19	19	0	0	0
Parkland	31	20	10	1	0
Prairie State	12	12	0	0	0
Rend Lake	8	6	0	1	1
Richland	8	8	0	0	0
Rock Valley	41	20	0	21	0
Sandburg	5	5	0	0	0
Sauk Valley	8	8	0	0	0
Shawnee	13	13	0	0	0
South Suburban	17	13	0	0	4
Southeastern	9	6	1	2	0
Southwestern	39	24	5	4	6
Spoon River	9	5	3	1	0
Triton	21	18	0	3	0
Waubonsee	21	21	0	0	0
Wood	11	1	5	5	0
TOTALS	681	536	38	59	48

Illinois Community College Board
Table A-3
CAREER AND TECHNICAL PROGRAMS ELIMINATED THROUGH PROGRAM REVIEW
IN FISCAL YEAR 2002

District/College	Program Title	CIP
Black Hawk	Computer Info Programmer AAS	521202
	Electronics Technology AAS	150405
	Legal Assistant AAS	220103
Elgin	Corrections Preservice AAS	430102
	Law Enforcement Certification Preservice AAS	430107
Harold Washington	Corrections: Institutional Corrections AAS	430107
William Rainey Harper	Electronics Manufacturing Technician AAS	470105
Illinois Central	COBOL Programmer Certificate	521202
	Data Processing Technology AAS	521202
	Computer Operations Certificate	521205
	RPG Programmer Certificate	521202
College of Lake County	Electronics Software Tech AAS	150303
Lewis & Clark	Computer Information Systems - Micro AAS	521202
	Help Desk Support AAS	521202
	Help Desk Support Specialist Certificate I	521202
	Help Desk Support Specialist Certificate II	521202
	Computer Programming Option AAS	521202
	Microsoft Network Specialist Certificate	521204
Lincoln Land	Security & Loss Prevention AAS	470109
Lincoln Trail	Data Processing-Programming AAS	521202
	Data Processing Programming Certificate	521202
Parkland	Telecommunications Systems Tech. AAS	150310
Rend Lake	Microcomputer Maintenance Option AAS	150301
Rock Valley	Electronics Tech AAS	150303
	Electronics Certificate	150303
	Advanced Electronics Certificate	150303
	Electronic Engineering Tech Certificate II	150303
	Electronic Engineering Tech Microprocessor Certificate	150303
	Electronic Engineering Tech Networks Certificate	150303

Illinois Community College Board
Table A-3
CAREER AND TECHNICAL PROGRAMS ELIMINATED THROUGH PROGRAM REVIEW
IN FISCAL YEAR 2002

District/College	Program Title	CIP
	Police Science Certificate	430107
	Law for Police Certificate	430107
	Organization & Administration Certificate	430107
	Police Instructor Certificate	430107
	Criminal Investigations Certificate	430107
	Traffic & Accident Investigations Certificate	430107
	Electronics Communications Certificate	470104
	Electronics Digital Controls Certificate	470104
	Microprocessor Certificate	470104
Rock Valley	Intro. Microprocessor Certificate	470104
	Advanced Microprocessor Certificate	470104
	Data Processing System Certificate	521202
	Data Processing R.P.G. Certificate	521202
	Microcomputer Certificate	521202
	Management Information Systems Certificate	521202
Southeastern	Corrections AAS	430102
	Industrial Electronics AAS	470105
Southwestern	Industrial Electronics AAS	470105
	Microcomputer Servicing & Repair Certificate	470104
	Major Appliance Tech AAS	470106
	Major Appliance Tech Certificate	470106
Spoon River	Microcomputer Applications Certificate	521202
Triton	Manufacturing & Machine Tool Technology AAS	150411
	CNC / CAM Adv. Certificate	150411
	Automated Systems Technician Certificate	150405
John Wood	Electronics Tech / RF Communications Technology Option AAS	100104
	Electronics Technology AAS	150303
	Electronics Technology Certificate	150303
	Electronics Tech / Electronic Engineering Tech Option AAS	150303

Illinois Community College Board
Table A-3
CAREER AND TECHNICAL PROGRAMS ELIMINATED THROUGH PROGRAM REVIEW
IN FISCAL YEAR 2002

District/College	Program Title	CIP
	Office Tech - Medical Transcription AAS	510708

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